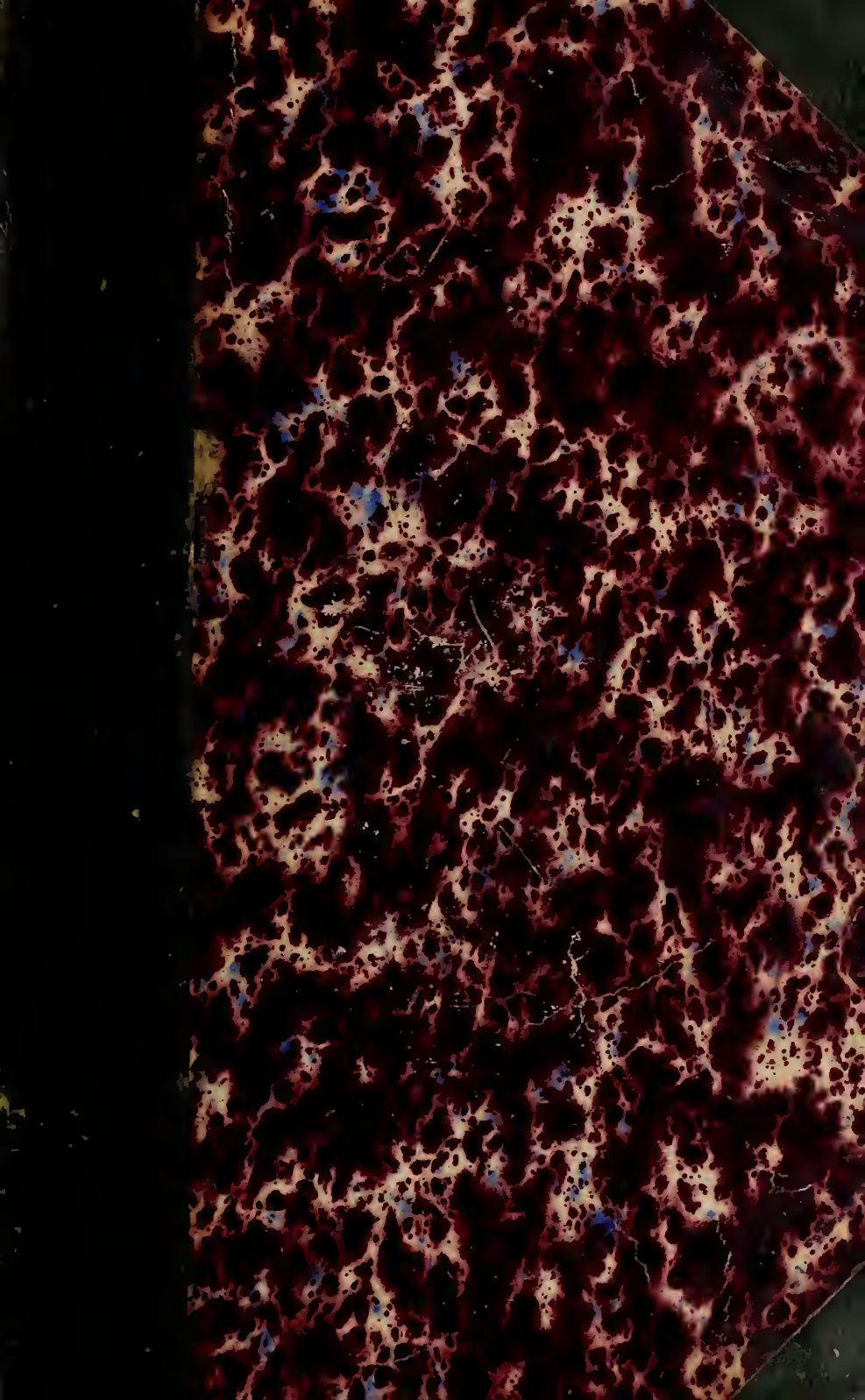
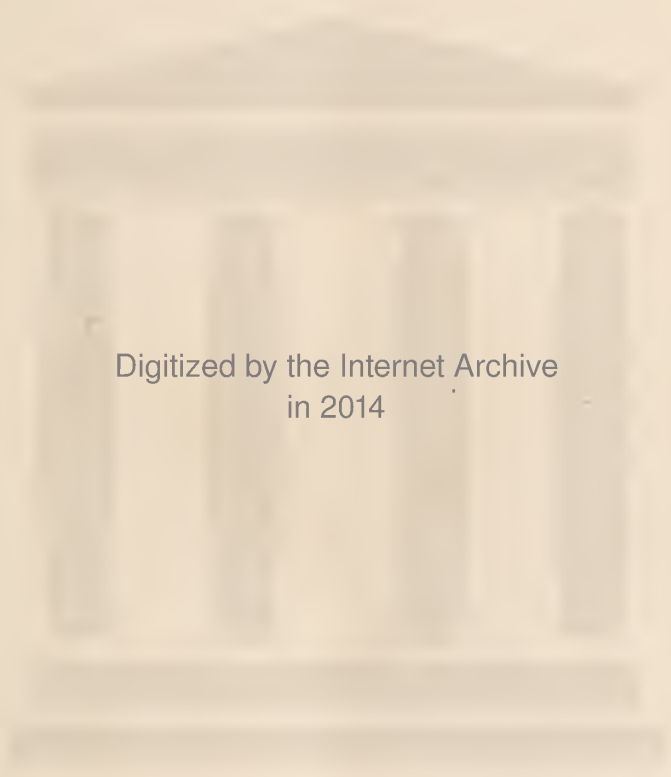




15179





Digitized by the Internet Archive
in 2014

THE BUFFALO

Medical and Surgical

JOURNAL.

VOL. XVIII.

BUFFALO:

BAKER, JONES & CO., 220 AND 222 WASHINGTON STREET.

1879-80.

INDEX.

A

Address, by Prof. T. F. Rochester	441
Asphalt, where obtained and how used. By * * M. D.	128
Atomizer, Antiseptic.	153
Artificial Respiration.	187
Antiseptic Dressing, of Prof. Lester.	61
American Medical Association.	394
A New Anaesthetic, Chloramyl.	140
Alcohol in Health and Disease.	22
Albuminuria, Occasional non-significance of.	24
Alumni Association of Buffalo Medical Col- lege, Meeting of	318
Andrews, Judson B., M. D., Address of Before Alumni Association Buffalo Medi- cal College.	340
American Medical Editors, Association of .	433
Acid Chlor-acetic, in Cancer.	390
Arkansas, Fourth Annual Meeting of the State Society of.	436
Axles, Patent Spring Washer.	194
Albany, Medical Society of the County of	219
American Medical Association.	434
American Medical Association, Fare to.	393
American Journal of Insanity, Libel Suit against the Editor of.	151
Animal Hypophosphites Glycerite. By E. C. Lester, M. D.	13

B

Buffalo Telephonic Exchange	354
Buffalo College of Rational Medicine.	393
Buffalo Medical and Surgical Journal, Vol. xviii.	33
Buffalo Medical Association, Proceedings of.	45, 95, 124, 247, 411
Books and Pamphlets Received.	39, 80
119, 160, 200, 240, 280, 320, 353, 359, 398, 400, 439, 440, 474.	

BOOKS REVIEWED.

Fifth Annual Report of the State Com- missioner in Lunacy.	37
Physics of the Infectious Diseases. E. A. Logan.	38
Congenital Occlusion and Dilation of Lymph Channels. Samuel C. Busey.	38
Atlas of the Diseases of the Skin. Bal- manno Squire.	39
The Obstetric Gazette.	39
The Cincinnati Lancet and Observer.	39
Transactions of the American Gynecol- ogical Society	77
Sources of Muscular Power. By Aus- tin Flint, Jr., M. D.	78

BOOKS REVIEWED CONTINUED.

A Manual of Operative Surgery. By Lewis A. Stimson, B. A., M. D.	79
Anatomy, Descriptive and Surgical.	118
A New Enterprise.	119
Fownes' Manual of Chemistry.	156
Barnes on Diseases of Women.	156
Nervous Diseases. By Allan McLane Hamilton, M. D.	158
Ziemssen's Cyclopaedia of the Practice of Medicine, Vol. XIII.	196
Playfair's System of Midwifery.	198
Elementary Quantitative Analyses. By Alexander Classen	236
Ziemssen's Cyclopaedia, Vol. XVII.	236
On the Therapeutic Forces. By Thomas J. Mays, M. D.	237
Transactions of Medical Society, West Virginia.	239
Reports of the Surgeon-General.	273
Cell Doctrine. By James Tyson, M. D.	278
Medical and Surgical Uses of Electricity. By George M. Beard, A. M., M. D., and A. D. Rockwell, A. M., M. D.	279
Diseases of the Bladder and Urethra in Women. By Alexander J. C. Skene, M. D.	279
Contributions to Reporative Surgery. By Gurdon Buck, M. D.	279
Principles and Practice of Surgery. By John Ashurst, M. D.	319
The American Quarterly Microscopical Journal.	
Monograph on Diphtheria. By William C. Reiter, A. M., M. D.	355
Antagonism of Therapeutics. By J. Miller Fothergill, M. D.	355
Localization of the Brain. By J. M. Charcot.	356
Index to Original Communications in Medical Journals of the United States and Canada. Compiled by Wm. D. Chapin.	356
On Rest and Pain. By John Hilton, F. R. S., F. R. C. S.	357
Medical Chemistry. By C. Gilbert Wheeler.	357
A Guide to the Practical Examination of the Urine. By James Tyson, M. D.	357
An Atlas of Human Anatomy. Rick- man John Godlee, M. S., F. R. C. S.	358
Practical Surgery, including Ligations and Amputations. By J. Ewing Mears.	358
Transactions of the Medical Society, of the State of New York.	358
Transactions of the Ohio Medical Soci- ety.	358

Free Dispensaries,.....	388	Maltine, and its Combination,.....	278
Femur, Amputation of.....	369	Maltine,.....	193, 354
Fistula in Ano. By T. G. Comstock, M. D.,.....	294	Medicine and Hygiene.....	274
G			
Gynecological Society American, Annual Meeting of.....	142	Medical Colleges, Call for Convention of.....	319
Grissom's, Dr., Charges against Dr. Hammond,.....	188	Medical Colleges, Convention of.....	433
Gross, Prof. S. D., Complimentary Dinner to.....	377	Medical Editors, American Association of.....	433
Glycerite of Animal Hypophosphites. By Elwood C. Lester, M. D.,.....	13	Medical Society of the County of Albany.....	259
H			
Hamilton, Prof. Frank H., Warm and Hot Water as Surgical Dressing.....	328	Medical Act, Wisconsin,.....	469
Hernia, Umbilical, in the Adult. By W. W. Potter, M. D.,.....	200	Malpractice in Maine, Suits for.....	21
Health Board, Proposed National,.....	230	Malpractice, Suits for, so common as to constitute an epidemic.....	192
"Happy New-Year,".....	233	Mortality of Doctors.....	183
Hamilton on Nervous Diseases,.....	194	Metric System in a Nut-Shell,.....	19
Hygiene, Rural,.....	36	Metric System,.....	73
Hutchinson, Prof. Joseph C., M. D. Mechanical Treatment of Hip, Knee and Ankle-joints,.....	418	Miuer, Prof. J. F. Iodide of Potassium in Syphilis.....	173
I			
Items.....	35, 74, 154, 193	" " Extirpation of the Spleen.....	367
Important Medical Works for Publication,.....	155	" " Cases in private practice of.....	10
Iron, Dialyzed,.....	181, 394	" " Removal of Ovarian Tumor,.....	10
"Index Medicus,".....	234	" " Ascites, Paracentesis-Abdominis,.....	11
Iodoform, Therapeutic value of.....	266	" " Polypus of Uterus,.....	12
Insanity, Early Indications of. By Judson B. Andrews, M. D.,.....	241	" " Atresia Vagina,.....	12
Iodide of Potassium in Syphilis. By J. F. Miuer.....	173	Mercury, Physiological and Therapeutic properties of.....	28
Insane Asylums, Employment of Female Assistant Physicians in Female Wards of.....	391	Morphia, Observations on Deep Injection of.....	59
Insane Asylum Investigation, Petition for.....	470	Milk in Bright's Disease, Intravenous Injection of,.....	464
Insane Asylum, Appointments to Utica,.....	152	N	
Illinois State Board of Health, attacking Quackery,.....	184	Newport, R. I., Scarlet Fever in.....	389
Ives, Dr. James, Death of.....	471	Navy, Surgeon-General of the.....	185
J			
Joint, Anatomy and Dislocation of. By Wm. F. Sheehan, M. D.,.....	361	Nitrate of Silver as a Uterine Caustic.....	187
Journals, New.....	277	Nervous Diseases, Hamilton on.....	194
Journals, List of Exchange.....	195	New Nerve.....	229
Joints, Mechanical Treatment of the Hip, Knee and Ankle-joints, with cases and illustrations. By Jos. C. Hutchinson, M. D.	418	O	
K			
Leonard's, C. Henri, Books.....	152	Ozone, Poisonous nature of.....	272
Libel Suit against the Editor of the American Journal of Insanity,.....	151	Open Air Treatment,.....	73
Laryngology. By Dr. Elsberg,.....	394	Office Card.....	471
Lactopeptine,.....	72, 278, 436	P	
Letter to the Journal,.....	190	Plague, Yellow Fever.....	67
Lister, Prof., Antiseptic Dressing of.....	61	Pleurisy and Empyema, Treatment of.....	25
M			
Mills, Henry, Causes of Diphtheria by.....	366	Peterson, Fred. Renal Calculus. Reported by.....	416
Medicinal Wines,.....	354	Pancreas, Scirrhus of.....	121
N			
O			
P			
Q			
R			
S			
T			
U			
V			
W			
X			
Y			
Z			
Quackery, Illinois State Board of Health, attacking.....	184	Quarantine.....	109
		Quarantine, English.....	232

R

Rachitis. By Joseph Fowler, M. D.,.....	81	Uterine Polypi and Fibroids.....	371
Religion and Chloroform.....	354	Uterine Caustic, Nitrate of silver as a.....	187
Rochester, T. F., M. D. Treatment of Ulcers with saturated solution Chlorate Potassium, by.....	177	Ulcers, treatment of, with saturated solution Iodide Potassium. By T. M. Rochester,.....	177
Rochester, Prof. T. F., Address by.....	441	Uranine.....	235
Rogers, Henry W. Extirpation of the Spleen, reported by.....	367	Umbilical Hernia, by W. W. Potter, M. D.	200
Renal Calculus, service of Dr. C. Diehl.....	416	United States Census, letter from Joseph K. Barnes, Surgeon-General U. S. Army....	226
Resolutions, Board of Health,.....	390		

S

Sheehan, Wm. F., M. D. The anatomy and dislocation of the shoulder-joint, by.....	361	Van Peyma, P. W., M. D., Malignancy in Tumors, by.....	401
Scarlet Fever in Newport, R. I.,.....	349	Vanderbilt University. Science in.....	32
Surgeon-General of the Navy.....	185	Vital Force, by A. R. Shank, M. D.,.....	1
Science in Vanderbilt University,.....	33	Vienna, letter from.....	460
Smartweed.....	66	Vol. XVIII Buffalo Medical and Surgical Journal.....	33
Shellac Cloth or Poroplastic Spinal Jacket, application of.....	274	Vol. XVIII, Completion of, and future of the Journal,.....	471
Surgeon-General Woodworth,.....	353		
Sewer-gas and Diphtheria.....	113		
Suits against Surgeons. By Geo. M. Blake, M. D.....	309		
Shank, Dr. A. R. Vital Force, by.....	1		
Storer, Dr. H. R. Protest from.....	117		
Stoddard, Prof. E. V., letter from.....	456		

T

Tumors, Malignancy in, by P. W. Van Peyma, M. D.....	401	Waddel, Dr. Death of.....	394
Telephonic Exchange, Buffalo.....	354	Woodworth, Surgeon-General.....	353
Telephonic Communication.....	277	Warm and Hot water as Surgical Dressing, By Prof. Frank H. Hamilton.....	328
Telegraphists Cramp.....	29	White, Prof. James P. Prospects and Progress of the Buffalo Medical College, by.....	321

U

University of Buffalo, Commencement in Medical Department of.....	316	White, Prof. James P. Post-partum Hemorrhage, by.....	411
		Wisconsin Medical Act.....	469

V**W****Y**

Yellow Fever Epidemic.....	114
Yellow Fever Plague.....	67

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

AUGUST, 1878.

NO. I.

Original Communications.

—:0:—

ART. I.—Vital Force. An Address by Dr. A. R. SHANK, President of the Cayuga County Medical Society, given at the Annual Meeting of the Society, June 12th, 1878.

Ladies and Gentlemen of The Medical Society of the county of Cayuga: In concluding the performance of those duties which devolve upon your presiding officer, I am required by our by-laws to deliver before this Society an address upon some subject pertaining to either Medicine or Surgery.

I apprehend that whatever pertains to or holds a definite relation towards any physiological action, will be regarded by you as a proper subject for consideration on this occasion.

Some two years ago I had the honor of reading before the Auburn City Medical Society an Essay, the subject of which was The Correlation of Physical and Vital Forces. Owing to the fact that that essay was sadly incomplete in its conclusions, I then promised the members of that society, that at some future time I would pursue the subject a step further, in order to show that in the exercise of our mental, as in all other bodily functions, the same relations with the physical forces are found to exist. Unless, therefore, I was very unfortunate in adopting a theme for the

paper just alluded to, in asking your attention at this time to a kindred subject, I shall not only comply with the requirements of our by-laws, but also fulfill my promise to the members of the City Medical Society.

Granting that the correlation of those forces which are by all regarded as purely physical, is as firmly established as the law that governs the momentum and velocity of falling bodies,—a fact which none present will dispute,—we may immediately proceed to the discussion of the subject before us, namely, Vital Force.

If we desire to rear a sound fabric of biology, we must begin our study of life with the observation of its humblest and most universal manifestations and from thence conduct our investigations by strictly scientific methods. The most universal and fundamental characteristic of life is that mode of vital activity which manifests itself in the evolution of the germ into a complete organism, repeating the type of its parents, and the subsequent maintenance of that organism in its integrity at the expense of materials derived from external sources.

Let us then, in pursuance of our subject, begin with the consideration of the nature and source of the force or forces by which inorganic binary compounds are raised to the grade of complex proximate principles and so combined as to produce a duplicate of the parent organism. The prevailing opinion was, until lately, that this power was inherent in the germ; which was supposed to derive from its parents not only its material substance but also a germ-force, in the exercise of which it not only built itself up in the likeness of its parents and preserved the integrity of its complete fabric, but also imparted a fraction of that force to each of its progeny.

Thus all the organizing force required to build up the vast fabrics of the mighty forest giants of the Caliveras valley and all their succeeding progeny, must have been contained in a minute particle of matter, only discernable by means of the closest microscopic inspection, and weighing, perhaps, no more than the thousandth of a grain. So, too, by that hypothesis, the germ-force which has organized the bodies of the whole human race must have been contained in that of Adam, its common progenitor. A more complete

reductio ad absurdum can scarcely be brought against any hypothesis, and it is manifest that we must look to some source without the organism for that force which is constantly expended in the construction and maintenance of living fabrics.

However the germ may have come in possession of its endowment, its office appears to be that of a directing agent; its function resembling that of a master builder having charge of workmen who labor under his direction.

If we extensively survey the phenomena of life as exhibited in both the animal and vegetable kingdoms, and carefully observe those influences which invariably accelerate or retard (though never preventing) growth and development, we can not but conclude that heat—the influence of which upon both structure and function is so marked—is the actual constructive force which performs the work of organization of all animal and vegetable tissue.

I now desire to direct your attention to some of those phenomena which appear best to illustrate the mode in which heat acts upon the living organism, promoting its growth and development. Let us commence with a seed of the vegetable kingdom. It consists of an embryo which, owing to parental influence, is already advanced to a certain stage of development, and which, by the same agency, is supplied with a store of nutriment, laid up for use in its further evolution.

Now, under suitable conditions, this seed will remain for an indefinite period of time in a state of inactivity; but the moment it is exposed to air and moisture and subjected to a higher temperature, it either germinates or decays. Which of these two opposite changes shall take place under this increment of heat-force appears to depend upon the loss or retention by the embryo of its vital endowment. If that endowment has been retained, and the requisite supply of air, moisture and heat be furnished, certain chemical activities will immediately ensue. The insoluble starch which surrounds the embryo is, by the agency of a ferment called diastase, brought into a soluble form called dextrine, and then, if the conditions be continued, into sugar. The dextrine and sugar combining with the albuminous and oily compounds stored in the seed

forms protoplasm, which is the material basis out of which all animal and vegetable tissues immediately arise.

But in the conversion of the insoluble starch into sugar and also, as is probable, by a further change of a portion of the sugar, a large quantity of carbon is eliminated by combining with oxygen of the air, which combination is necessarily attended with the disengagement of heat—as may be seen in the process of malting.

Now since it is invariably true that the rate of growth and development in the germinating embryo is (within certain limits) closely correspondent with and in a direct ratio to the quantity of heat supplied it must be regarded as highly probable that the heat disengaged during the process of germination, concurring with that derived from external sources, constitutes the force employed in the evolution of the germ.

Thus far the condition and behavior of the embryo animal resembles that of the vegetable. But when the plant has reached a more advanced stage of development it acquires the ability to form the materials necessary for the extension of its fabric, instead of receiving its supply, as at first, from some previous agency. The tissues of the colored surfaces of its leaves and stems, when acted on by light, have the power to generate, at the expense of carbonic acid water and ammonia, various organic compounds, such as chlorophyll, starch and albumen, a portion of which is appropriated to the formation of new tissue, while another portion is stored away within the cavities of the tissue already formed, when it may serve for the nutrition of animals using them for food, while still another portion undergoes a retrograde metamorphosis, thereby liberating such a measure of heat, (or constructive force,) as may be necessary to maintain the specific temperature of the organism whenever subjected to a measure of external heat less than its own, and whereby, also, by a progressive metamorphosis, another portion is raised to the level of organized living tissue.

The influence of light upon vegetable organisms appears to be exerted in bringing about what may be considered a higher mode of chemical combination; but that the appropriation, by the more fully developed plant, of the material thus produced and its conversion into living organized tissue, is as dependent on heat as ar

those earlier structural changes which occur during the period of germination, is obvious.

When instead of yielding any portion of its tissue for the nutrition of animals the entire fabric undergoes a retrograde metamorphosis, whether by slow decay or ordinary combustion, it gives back to the inorganic world, not only every particle of inorganic matter contained within its fabric, but also the exact equivalents of light and heat that were employed in elevating it to the level of organized living tissue. Hence we are justified in the conclusion, that the correlation between heat and the organizing force of plants is not less intimate than that existing between heat and motion or other forms of physical force.

In the ovum of the animal as in the seed of the plant, a supply of organic compounds is provided; and that supply is suitable in kind and sufficient in quantity for the development of the contained embryo until it reaches a stage of advancement when the young animal becomes able to ingest material for its subsistence. But that the animal ovum is as dependent upon heat as a constructive force in its development as is the germinating seed, is proved by the fact that the eggs of the orchard caterpillar may be made to produce a brood as readily in the winter as at that season of the year when, as is ordinarily the case, their emersion occurs at a time when the leaves suitable for their food put forth.

The stage of development at which animals of different tribes come from their ova are widely dissimilar. Some commence their independent existence at a stage of development which, as compared with the adult, is as if a human fetus should be thrown upon the world within a few weeks after conception. We see in the flesh-fly a typical example of this. When first entered upon its larva state it is an extremely simple and minute worm, nearly incapable of movement but possessed of extraordinary voracity. Owing to its favorable surroundings it is as well provided with alimentary organic compounds as if supplied with a supplementary yolk. By availing itself of this alimentary provision it soon grows to many times its former size without, however, making any perceptible advance in development. But soon, having laid up within its tissues a store of additional material it passes into a state which,

as far as outward appearances indicate, is one of torpor, but which is really one of great developmental activity. For it is during this pupa state that those parts are evolved which characterize the perfect insect. And since during this purely developmental stage of its existence, it rapidly and invariably loses a portion of its weight and also exhales carbonic acid and water in amount excessively disproportionate to the heat liberated from its body, we are left to no other conclusion than that there is a retrograde metamorphosis of a part of the store of materials laid up during the larva state, and that a portion of the force released during this retrogressive change is expressed in the form of heat, while, that remaining portion which does not make itself thus manifest is consumed in the process of progressive evolution.

There are insects whose lives are of but short duration, during which they take no food whatever. All their vital activities must therefore depend upon the store of material ingested during their larva state. The sole object of their existence appears to be the generative act, after performing which they almost immediately die. There are other insects whose period of existence is more prolonged and upon whose vital energies there are extraordinary demands—as in the production of locomotion—and who retain the voracity which characterized them in their larva state, yet whose bodies increase but little if any and whose existence also terminates very soon after sexual congress or deposition of ova, but whose lives are invariably prolonged when the sexes are kept apart. These facts considered conjointly establish beyond a doubt, first, that the act of generation is consummated not alone at the expense of organic compounds ingested during the larva or imago state, but also at the expense of constructive force which must result from a retrograde metamorphosis of either a portion of their organic compounds or organized tissue, one of which changes must be assumed as occurring in order to account for the relation of cause and effect which obviously exists between the death of the insect and the act mentioned; and second, that organic materials ingested which do not appear as accumulated organic compounds nor as living organized tissue, must be expressed either in a transmutation to constructive force or in exhaled carbonic acid and water, which is

always proportionate to the work performed. And that the motor energy exhibited is not at the expense of organized tissue but at that of the organic compounds ingested, is manifest from the fact that the amount of food demanded and its metamorphosis, as indicated by the exhalation of carbonic acid and water, bears a direct proportional relation to the amount of power produced, while the metamorphosis of organized living tissue, indicated by the excretion of urea, bears no such proportional relation.

There remains for our examination another class of vital phenomena, namely, that which embraces those activities generated within nerve centres.

That the particular mode of force out of which these activities arise is motion, is obvious from the fact of its being propagated along the nerve substance from extremity to extremity, and as has been demonstrated by Bence Jones, and Emile Du Boise Reymond, at the rate of about nine-seven feet per second.

That nerve-force is as analogous to electricity as that force is to its correlate magnetism, is shown by the following facts, namely; that the transmission of a current of electricity along a nerve will cause contraction of the muscular fibers to which it leads; and that muscular contraction is excited also by diminishing the normal electrical current. For since contraction is the only possible mode by which muscular fibers can manifest their reception of stimuli to which they may be subjected, and since contraction does not occur from other causes than those mentioned, it follows, that nerve-force can be recognized only as a correlation of that form of physical force known as electricity. But electricity is a correlation of heat, and, as we have before shown, heat is a correlation of constructive force. What, then, is nerve-force but transmuted constructive force, released in those retrograde changes resulting from the functional activity of nerves and nerve centres.

But even the highest and most obscure manifestations of animal life have not escaped the revelations of modern science, and results of great value have been obtained which will not only help us in the solution of our present problem but through which, as I believe, we will yet be enabled to measure that most subtle and elusive of vital products, namely, thought. Every external mani-

festation of thought-force is a muscular one, as a word spoken or written, an expression of the face or a gesture. Hence this force must be intimately correlated to muscular motion.

It is after and only after the brain cell has been educated that thought-force, as expressed in muscular action, conveys meaning or excites concordant thoughts. Has it no other mode of expression? Can thought be manifested inwardly, without transformation into the actual energy of motion?

Experiments ingenious and reliable have answered these questions. Inasmuch as the methods for measuring electricity are very exact and the means for converting heat into electricity equally efficient, we may by the aid of a simple apparatus ascertain the measure of heat within the 0.004 of a degree. The apparatus consists of two small metallic bars for the conversion of heat and a delicate galvanometer for the measuring of the electrical product of the conversion.

Any change of temperature produced within the skull is soonest manifested externally in the depression located just above the occipital protuberance. If a pair of the bars just mentioned be fastened to the head at this point, and another pair, reversed in direction, to the arm or leg no deflection of the galvanometer will be produced by the electricity developed by a general rise of temperature since their equal and opposing currents will neutralize each other. If, however, from an increase of heat in that part to which one of these pairs of bars is attached, it be subjected to a higher temperature than its fellow, its increased electrical product will be immediately shown by the deflected needle.

By long practice a state of mental torpor can be induced lasting for hours, during which state no relative change of temperature can be observed in the parts of the body thus brought into comparison. But let a person knock at the door, or a single word be spoken, and though the experimenter remains otherwise absolutely passive, his reception of the intelligence causes the needle to swing through 20 degrees.

The analogue of this experiment is found in Heidenhain's Essay on Muscular Labor, in which the author established by repeated experiments, that when muscular contraction does not result in

motion—as when one tries to raise a weight too heavy for him—the energy that would otherwise have appeared as motion takes the form of heat; and also in the fact, discovered by Emil Du Boise Reymond, that those molecular changes in the nerves which, if permitted to reach the muscular fibers, cause them to contract, if arrested in their progress may be transmitted into a deflection of the galvanometer—results which the law of correlation requires.

These experiments have proved also, that ideas which for a few moments affect the emotions only, produce more heat than hours of deep thought, from which fact it is evident that thoughts originated are such a portion of vital energy as escapes expression as heat.

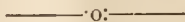
Dr. Lombards's experiments show that the amount of heat developed by the recitation of emotional poetry aloud is in every case less than when the same compositions are recited to one's self; which fact is in accordance with the well known truth that emotion finds relief in physical demonstration, and also with the law of correlation. Nor does the doctrine of the correlation of the vital and physical forces rest on this class of evidence alone. The chemical products of mental activity appear to indicate that thought-force is evolved out of the organic compounds within our bodies and not at the expense of our organized tissues.

Dr. H. L. Wood in a valuable paper on the Influence of Mental Activity upon the Excretion of Phosphoric Acid by the Kidneys, published among the Proceedings of the Connecticut State Medical Society, has fully demonstrated that brain production, like that of the muscles, comes from the food and not from the disintegration of its own tissue. And how could this be true if thought-force was other than a transmutation of the energy which raised binary inorganic compounds to the higher chemical platform, represented in the daily food of man?

We observe then in conclusion, that a careful survey of the whole phenomena of life as exhibited in the two great natural kingdoms to which it belongs, reveals to us no instance or degree of vital action which is not the expression of some mode of that indefinable something to which we habitually refer all change, and which we agree in denominating—force.

The doctrine of the correlation of all terrestrial forces finds strong support in the unity of the source from which they alike arise. It is to the sun, as to the physical vicegerent of Deity, we must look for light and heat and all those subtler influences whose nature and operation are as yet but darkly understood. The winds, the rivers, the waves of the ocean and its profoundest currents are driven and maintained by the sun. All the power of steam is his. By the obscure processes of vegetable and animal vitality his power is stored away in various organic compounds, by the consumption of which alone life and activity are maintained; so that on close analysis we recognize the transformation of solar force, not only in our mechanical actions, the motions of our limbs and the sound of our voices, but even in the higher functions of thought and passion. As long as our functions are performed only by means of brain, nerve and muscle, so long it will be true that for all energy of thought, all intensity of feeling, all vigor of action of whatever kind we are ultimately dependent upon the sun.

The term for which I was chosen your President is about to expire. I thank you for your kindness both in choosing me as your presiding officer, and for your support while I have discharged his duties. With heartfelt wishes that your Society in future may be prosperous, and that you as individuals may be the recipients of those blessings which crown the good physician I conclude my duties.



ART. II.—Surgical Cases in the private practice of Prof. JULIUS F. MINER, M. D. Reported by Charles A. Wall, B. S.

CASE I. Mrs. M., æt. 45; widow; American. The patient who had borne two children, both now living, was a healthy woman until six years previously, when a small tumor made itself manifest in the left inguinal region, which seemed to attach itself to the uterus. Its growth was moderately troublesome until about the first of January, 1877, from which time it increased rapidly. She was examined by a number of physicians, all of whom refused to operate, fearing adhesions and attachments to the uterus. June 6, 1877, after careful examination, Dr. Miner determined there

were grounds to expect the tumor might be removed with usual safety. Ether was used to produce anæsthesia, which was taken pleasantly. An exploratory incision having been made there was found to be a multilocular ovarian tumor which was removed in the usual manner, but as the pedicle was found to be very short and large vessels extending into the solid portions of the tumor direct without subdivision, a double ligature was passed through the pedicle as near its end as possible and tied. The tumor was severed and the pedicle stitched into the lower angle of the wound. The incision was closed with interrupted sutures, warm water dressings applied and the patient put to bed. The tumor weighed with contents about thirty pounds, emptied of its contents it weighed twelve. It consisted of one large cyst, a few moderate sized, and many small cysts with a solid portion weighing about seven pounds. The pedicle was attached to the solid portions, many of the arteries entering the tumor direct and about the size of a small quill, they then subdivided and supplied the partitions between the various cavities. The pedicle was noticable from its shortness and thickness, it was the fallopian tube enlarged and when it was stitched into the angle of the wound it tilted the uterus up and turned its lateral diameter nearly antero-posteriorly. She rallied well from the ether, and at 6 P. M. the same day her pulse was 84, temperature normal. She continued improving until June 20th, when by excitement from visiting with her son and writing a letter, unknown to the nurse, her pulse went up to 120, temperature 104, these came down in a day or two and she went on to a good recovery. She did not evacuate her urine naturally without the use of the catheter for nearly three weeks, after which she had no more trouble. The unnatural strained position of the uterus has not been a source of discomfort, which is the most remarkable feature of the case, the distance from the abdominal parietes to the uterus not being over an inch.

CASE II. *Ascites, Paracentesis Abdominalis*, recovery. Mrs. S., æt. 21, American, had been married about a year when she began to be troubled with an increase in the size of the abdomen, pregnancy was suspected but found to be absent, and upon exam-

ination July 9th, Dr. Miner diagnosed ascites and tapped it, drawing off about ten quarts of a clear limpid fluid which would not coagulate upon the application of heat. In every other respect she seemed healthy, and no cause could be found for the accumulation of the fluid. The kidneys were normal in their action as were the other organs, so far as could be ascertained.

July 10th, 1878. There has been no recurrence of the trouble and she has been uniformly healthy. Nothing has as yet shown itself to indicate the original cause of the ascites.

CASE III. *Polypus on neck of Uterus.* Mrs. P., æt. 60, has long suffered from an offensive discharge from the vagina, which had by its corroding action made the external genitals tough, hard and inelastic as leather. Astringent washes were used for some time with little effect, except to reduce the excessive tenderness of the parts. July 15th, 1877, upon examination by speculum, a small polypoid growth upon the anterior lip of the os uteri was discovered. This was taken away with a pair of forceps, and chromic acid used to cauterize its base which seemed to remove the trouble, and the discharge from the vagina soon ceased. In the course of a few months the parts took on a healthy nature and she has not suffered with any return. The case is peculiar in that so small a polypus (not larger than a bean,) could create so much disturbance. The external parts were thickened, enlarged and toughened almost past recognition; they seemed more like leather than healthy human skin. The vagina was inflamed and excessively tender. The result was astonishing, soon after the polypus was removed the discharge ceased and the parts began to change and grow more healthy, and it was only a few weeks before they returned to their natural color and flexibility.

CASE IV. *Artesia Vagina.* Mrs. R., æt. 30, German. Two years previously had long tedious labor, in which forceps were used followed by ulceration of the parts which occluded the vagina, the occlusion was so perfect that the smallest probe could not be introduced. Anæsthesia having been induced, operation was made July 20th, 1877. The parts were separated until the finger could be passed into the vagina. The cicatrix

was then carefully cut out and the parts brought together by interrupted sutures. This necessitated taking out a piece extending nearly around the vagina; in front it was only about one-quarter of an inch, while at the posterior surface the width was nearly an inch. Care was taken to remove all the cicatricial tissue and bring the mucous membrane into approximation. In no place were the deep tissues invaded, and as the wound healed by first intention no further operative measures were needed. In two weeks she was well and a medium sized speculum could be introduced. The parts were healthy and normal, while the line of union could not be made out. This is a rare case from the closeness of the occlusion and the ease with which it was removed.

————:o:————

ART. III.—Glycerite of Animal Hypophosphites. By ELWOOD C. LESTER, M. D., of Philadelphia, Pa.

Among the therapeutical novelties which have awakened professional interest during the past five years, phosphorous compounds isolated from brain, are entitled to consideration. While there seems to be nothing more remarkable, mysterious, or quackish in isolating phosphorous compounds from brain, than there is in isolating pepsin from the stomach, ptyalin from the saliva, or pancreatine from the pancreas, as is generally known, the solution of isolated phosphorus compounds were received with grave suspicion.

Dr. Percy in his Prize Essay, Phosphorus (Trans. Am. Med. Association, 1872,) suggested that, notwithstanding he was unaware that any one had used the brain hypophosphites as a remedial agent, he would suppose on hypothetical grounds, that they would prove a valuable preparation of phosphorus because they represented phosphorous in the exact form in which it sustained vital functions." In "New Remedies," November, 1876, appeared the first literature on the subject, and since then these compounds have grown into professional favor. It is estimated that the use of them now exceeds five hundred pounds a month.

Before Churchill of Paris declared that the phosphatic nutrient of the human organism is in the formula of a hypophosphite, chemists generally held the view that phosphorous existed in the human organism only as a phosphate. Churchill, however, found followers.

Dr. Percy, in his Prize Essay, demonstrated that "the phosphatic nutrient of the brain is in the form of an alkaloidal hypophosphite." Francis Gerry Fairfield says that the phosphorus in the human organism is in the form of the phosphates of lime and magnesia; phosphites of ammonia, potash and magnesia; nitrogenous and oleo-nitrogenous hypophosphites of lime, potash, soda, ammonia and iron; hypophosphite in combination with albumen, and hydrated hypophosphorous acid in combination with oil. I believe there is no essential difference of opinion as to the phosphorous elements of the human organism between Drs. who have recently written on this subject. Their seeming differences are simply questions of priority in which the profession has no interest.

At a glance it will be seen that these hypophosphites, isolated without heat or any oxidizing agent, will be in the exact formula in which they subserve vital functions. The inference is natural that such hypophosphites must be more exactly adapted to the requirements of the organism in all cases in which there is a deficiency of the phosphorous elements, and are entitled to preference over the laboratory kind whenever hypophosphites are indicated.

The range of pathological conditions in which these are indicated is extensive and constitutes a very serious class of maladies. Recently my experience with the ordinary hypophosphite of calcium has been very satisfactory. A month ago I began testing the Glycinite of the Animal Hypophosphites, and so far the result has been favorable. The period has been too short to decide with any certainty its positive value, but the evidence from many others seems to give assurance that it is equal in Phthisis to any other remedy.

Professor Wellford, of Richmond, Va., in a paper recently read before the Richmond Academy of Medicine, showed "that the trifacial neuralgia of pregnant and nursing women depended upon

a deficiency of the phosphorous elements. He had seen teeth of pregnant and nursing women drawn by dentists, which seemed normal in their external appearance, but upon examination after withdrawal consisted of nothing more than enamel. He attributed cases of dental decay, neuralgia, stomatitis materna, and pain in the back occurring in pregnant and nursing women to the demand for phosphates which nature was unable to supply." Others attributed a large per cent of the diseases of dentition to a deficient supply of the phosphates.

Routh, of London, has shown that premature decay of the brain functions, whether resulting from overwork or sexual excesses, is attended by a marked deficiency of protagon. Dr. J. S. Jewell has given very cogent reasons for believing that the great cause of neuralgia is in innutrition of the nerve cells, or, as Romberg has expressed it, the cry of the hungry nerve for blood. Dr. Edward C. Mann has shown that chronic insanity is largely in consequence of brain innutrition. Hentier has demonstrated that the integrity of the brain depended upon a proper supply of the phosphorous principles. But the value of protagon is so well recognized that it scarcely need be debated. It, as Fairfield has said, "is the organizer and tissue generator of the animal and vegetable kingdom, and the source of all the varied morphological phenomena illustrated in the growth of the living bodies from a simple albuminoid base. It is protagon, which co-ordinates its organization into tissues, having special functions, and determines all its various morphological products."

Life has a chemistry of its own. In its alembic are developed compounds that can be only imperfectly imitated in the laboratory. To them is imparted a vital adaptability which the skill of the chemist cannot impart. He can, however, isolate and preserve many of these productions and employ them successfully in cases in which the vital elaboration is insufficient. Pepsin, pancreatin and isolated phosphorous compounds are familiar examples. They fill indications in the management of various forms of innutrition, nothing else can so well reach. They give the products of the vital laboratory, back to the organs and functions, and thus become therapeutical agents of high value. Scarcely less valuable than

these is the phosphorous compounds isolated from the vegetable kingdom. These the writer has used largely in his practice during the past year in wasting diseases of children, and the more he has employed them the more is he impressed with their great value.

The Glycerite of Animal Hypophosphites is designed to be the *par excellent* preparation isolated from organic sources.

The following is the composition of one hundred parts as given in the "Philadelphia Druggist and Chemist:"

	Parts.
Isolated Nitrogeous Hypophosphate of Calcium,	6
“ “ “ Sodium,	5
“ “ “ Potassium,	3
“ “ “ Ammonium,	8
“ “ “ Magnesium,	3
“ “ “ Iron,	4
Hypophosphorous Acid with Albumen,	2
Zeoline (an alkaloidal hypophosphite composed of three parts of blended nitrogen and glycerine with one of hypophosphorous acid.),	9
Glycero Hypophosphorous Acid,	5
Hypophosphorous Acid (liberated from its oleo nitrogeous association,	5
Bower's Chemically Pure Glycerine,	50

The dose is ten drops thrice daily.

It is designed to represent all the phosphorous compounds of the animal organism, as the probability is that it contains all that is essential for therapeutical purposes. If tested by the profession I have no doubt but that it will grow into favor and become extensively used. It will prove an excellent nutritive tonic and will meet all the indications that it is possible to meet, with any of the phosphorous compounds.

—:O:—

DEATHS FROM CHLOROFORM.—A case of this occurring in the dentist's chair is reported in the *British Medical Journal* for May 18, 1878; another case will be found in the number for May 25th, and two more, which occurred at the Edinburgh Royal Infirmary, in the issue of June 1st.

Correspondence.

BUFFALO, July 29, 1878.

Editors Buffalo Medical Journal:

I send you for publication the inclosed letters. The matter, perhaps, has already received all the attention that it demands. The letters are of interest, however, as showing the composition of the "Boudior" Medicines, and the method taken by their proprietor to advertise them.

Very truly yours,

JAMES P. WHITE.

NEW ORLEANS, July 15, 1878.

DEAR SIR:—Some time ago you wrote me about an impostor of your State who had made victims of us both. I wrote you at the time that I had an indistinct recollection (I think), or that I not unfrequently received letters of the kind alluded to. Looking over my old papers for other purposes, have found this man Cronyn's letter, and I enclose it to you to make such use of it as you see fit. My recollection now is that I did write a polite line to the fellow, saying that his prescriptions were probably good. I did this because I supposed he was a gentleman, and I wished to treat him politely—not because I gave the matter any serious thought.

Very truly,

D. WARREN BICKNELL.

PROF. WHITE, M. D., Buffalo.

DUNKIRK, Chautauqua Co., N. Y., {
14th May, 1877. }

DEAR DOCTOR:—In my female practice I have been prescribing the enclosed combination of medicines as an injection, in Leucor-

rhœa and Ulceration (simple) of the Uterus, varied in strength according to the severity of the case.

Acidi Carbolici,
Liq. Plumbi Subacet,
Fluid Ext. Papaveris,
Glycerine,
Aqua Rosa.

I have been much interested in your articles in the *Amer. Jour. of Med. Sciences*, and I write to ask your opinion of the above, and also the following tonic medicines, by the stomach, for the relief of the dozen and one complaints always attendant upon such cases:

Tinct. Ferri Mur.	℥iii
Tinct. Nucis Vomica,	℥ii
Tinct. Calumbo,	℥ii
Aqua Cinnamoni,	℥ii
Syrupi Simplicis,	q. s.
Ft. Mist.,	℥viii

Signa.—One tablespoonful three times a day.

Very respectfully,

WILLIAM CRONYN.

D. WARREN BICKNELL, M. D.,

Prof. of Obstetrics and Diseases of Women,
Charity Hospital Medical College,
New Orleans.

————:o:————

The Journal of Inebriety mentions two cases in which dipsomania was caused by tape-worm. So soon as the animal was dislodged all craving for alcohol disappeared.

————:o:————

The Boston Medical Library has recently received the library of the late Dr. Edward Warren, of Boston, consisting of two hundred bound volumes and six hundred valuable pamphlets.

Miscellaneous.

The Metric System in a Nut-Shell.

By EDWARD WIGGLESWORTH, M D.

“WASHINGTON, May 3.—Surgeon-General Woodworth, of the U. S. Marine Hosp. Service, has issued a circular, with the approval of Secretary Sherman, requiring medical officers of the Marine Hosp. Service to make use hereafter for all official, medical, and pharmaceutical purposes, of the Metric System of Weights and Measures, which has already, under the act of July 28, 1866, been adopted by this service for the purveying of medical supplies.”—*Boston Daily Advertiser*, May 3, 1878.

The Metric System is already *legalized* in both America and England. The only question now is, which of the two, the most progressive or the most conservative nation on earth, shall be the first to definitely and finally adopt it as an *exclusive* system? [N. B.—England was 400 years behind the continent in adopting our present arithmetic.] Russia has already taken the preliminary steps towards its final adoption. The rest of the civilized world long since made the system obligatory, in whole or part, except that, in Sweden alone, its obligatory use is to date from a period in the future, 1889.

Now, what is this Metric System? Metric is from the Greek word “metron,” a measure, spelled with Epsilon, e short, and, therefore, pronounced met-ric.

The Meter [measure] is, practically, a fixed quantity, namely, the ten millionth part of the earth's quadrant from the Equator to the North Pole. With the Meter everything can be *measured*, for it is itself the unit of length: a cube, the edge of which is the tenth of a meter, is the unit of capacity [Liter], and the weight of a cube of rain water, at its extreme contraction, the edge of which cube is a hundredth of a Meter, is the unit of weight [Gram].

It is the Gram alone which concerns physicians, for, in the Metric System, *everything is best prescribed and dispensed by weight alone*; numbers upon a prescription paper being regarded by the pharmacist as representing Grams, unless the contrary is expressly stated. The fractions are always decimal.

The table is easily learned. It consists of six words, as prefixes, whether we deal with Grams, Liters, or Meters. These are: Deci for tenth, Centi for hundredth, Milli for thousandth; Deka for ten, Hekto for hundred, Kilo for thousand. Having these few words, the terms of Troy, Avoirdupoise, and Apothecaries' weight, and of liquid measure, may be relegated to the limbo of pounds sterling,

shillings, four-pence-ha'pennies, and farthings. As we say dime, cent, mill, so we say decigram, centigram, milligram. These prefixes are Latin, and *deminish* the value. Dekka, hekto, and kilo are Greek, and *increase* the value. The mnemonic is G I L D, *i. e.*, Greek Increases, Latin Decreases. Dekka occurs in the English word decade, hekto in hecatomb; kilo in chiliad.

"Being accustomed to the words mill, cent, and dime, we shall find the words 'milligram,' 'centigram,' and 'decigram,' quite as simple and easy to pronounce as our words 'pennyweight-troy,' 'hundredweight-avordupoise,' 'scruple-apothecaries,' etc., notwithstanding the assertion to the contrary of those who grieve to give up the short and sharp Anglo-Saxon words used in our present *familiar* old tables of weights and measures."

Practically, moreover, for physicians, the whole system is reduced to grams and centigrams, just as, in money, to dollars and cents. On the right side of the prescription paper draw a perpendicular line from top to bottom. This decimal *line* takes the place of all the decimal *points*, and obviates the possibility of mistakes. This is the way dollars and cents are separated on business papers. Additional security is gained by writing the decimal fraction [centigrams] of half-size and raised above the line [of grams], since it represents a numerator of the denominator, 100 is omitted. To make assurance doubly sure, "Grams" may be written over the integer-column of figures, and, if wished, the word "decimals" over the decimal column.

Now, what is a Gram? or rather, the values, metrically expressed, of our present awkward weights?

		Prussian.	Practical.	Precise.
Grain I	=	0.06	0.06	0.065
⊕ I	=	1.25	1.25	1.29
℥ I	=	3.75	4.0	3.89
℥ I	=	30.0	32.0	31.0

The "practical" table alone concerns us. The "Prussian" [by order of the Prussian Ministry, Aug. 29, 1876] is given merely to show that our table is even nearer the actual truth than one which has been proved by actual experience to answer every purpose. The values of the grain and scruple are a little too small. As they are used for powerful drugs this is an error in the right direction. The values of the drachm and ounce are a trifle too large, but the proportions and therefore the ratio of drug to the vehicle are preserved.

A prescription written metrically is always proportionate, and whether the pharmacist uses pennyweights, pounds, or tons; gills, pecks, or chaldrons; pints, gallons, or hogsheads, the ratios are preserved, and a teaspoonful dose contains the same amount of medicine.

As regards administration, a teaspoon represents five grams, a

tablespoon twenty grams; for a teaspoon holds one and one-third fluid drachms, a tablespoon a trifle more than four times as much.

In the Metric System *everything is weighed*, thus obviating the difficulties of evaporation, refraction and adhesion, and obtaining more conveniently, more exact results. In our old "systemless system" some fluids were measured. How shall we obtain with weights, the desired bulks of fluids with varying weights? Must we learn the specific gravity of all fluids?

Not at all!

1. Fixed oils, honey, liquid acids and chloroform, must at present be prescribed in our old weights, not measured, according to the pharmacopœia. Here change old weights to metric ones.

2. Not enough chloroform or ether is included in any one prescription to admit of harm arising from the amount contained in a single dose, even were their weights regarded as the same with that of water. Moreover, it is not difficult to remember that ether weighs seven-tenths as much as water, chloroform twice as much as ether.

3. There remain infusions and tinctures, glycerines and syrups. These four are used in bulk as doses, or as solvents or vehicles. The former two may be regarded as identical in weight with water; the latter two as one-third heavier, and when prescribing these we need merely write, by weight, for four-thirds as much as we should write for were we prescribing water, and we obtain an equal bulk. The teaspoon or tablespoon dose will then contain the desired amount of the drug employed.

Or, simplest of all, we can make any mixture up to any desired bulk merely by directing the druggist to use enough of the vehicle to bring the whole mixture up to the requisite weight for that bulk.

The Metric Bureau, 32 Hawley Street, Boston, will furnish metric prescriptions-blanks to order, to druggists or physicians at four-fifths printer's rates, or any blank can be made sufficiently metric by a perpendicular line at the right, headed *Grams*.

—————:O:—————

Suits for Malpractice in Maine.

At the recent meeting of the Maine Medical Association at Portland, Dr. E. F. Sanger, of Bangor, presented the following statistics: "There are about six hundred regular physicians in the state. I have received reports from one hundred and fourteen of them, and in these reports have selected seventy cases of malpractice-suits, fifty-five threats, and fifty-eight who have never been sued or threatened. Many, from modesty and a disinclination to advertise their contributions to the patients and attorneys

who follow us as the shark does the emigrant ship, have failed to report. The new-beginners and unthrifty of our profession are exempt from these rapacious attacks, and yet I have reports of more than one hundred and twenty-five cases of such suits and threats within the remembrance of the present generation. Excluding those who will not report and those who would naturally be exempt from such attacks, we safely may say that hardly a surgeon of experience and property, in active practice, escapes the annoyance and expense of these vexatious attacks. Of the seventy who were sued for damages of from \$1,000 to \$25,000, six paid from \$100 to \$350 rather than stand trial, and nine were east in damages for malpractice of from \$103 to \$2,000. The nine plaintiffs who compounded were not worth any thing. Eight of the nine who got damages were not worth a dime, and all but six of those who failed to sustain their suits were worthless. Out of seventy prosecutions only seven were able to pay taxable costs, and very many of them were drunken and shiftless persons. One in eight got a verdict for damages. The nine who settled got \$2,980; but as one had six trials and two others one each, and as none of the plaintiffs were able to pay the costs of a suit, it is probable that lawyers and witnesses absorbed the entire amount. The total amount paid upon the verdict for damages was about \$6,500, as many of the suits were long and expensive, and it is probable that more than one-half of the amount was absorbed in expenses, leaving about \$3,000 to be distributed. How much the lawyers realized, and how much the patients, does not appear; but a very small amount went to fill hungry mouths."—*Louisville Medical News.*

————:o:————

The Employment of Alcohol in Health and in Disease.

Renewed and very serious attention has been of late paid, by the medical men of Great Britain and Ireland, to the subject of the use and abuse of intoxicants. Though the vice of drunkenness is bad enough in this country, it is worse in those islands. The annual cost of the alcoholic liquors consumed amounts to the enormous sum of *seven hundred and thirty million dollars*; the number of inmates of workhouses who have been brought there by this indulgence is estimated at five-sevenths of the whole; and of the disease, suffering, mortality and deaths indirectly traceable to the same cause only approximate yet most startling, estimates have been made.

The President of the Ulster County Medical Society, Ireland, in contemplating this enormous expenditure, exclaims:—

"This sum is enough, in little over five years, to pay off the national debt; enough, if spent in supplying food, clothing, domestic requirements, and otherwise beneficially, to develop good trade, the physical, mental and moral well-being of the people, national greatness and general prosperity—an average of £23 a year for each family! of nearly £5 for each man, woman and child! And what do the people get in exchange for all this expenditure? Misery, misfortune, disease, crime!"

After a very full discussion, the Society of which he is President declared their opinion that alcholic stimulants are not only unnecessary in health, but are generally hurtful, and therefore, should be discountenanced by medical men.

That apostle of total abstinence, Dr. B. W. RICHARDSON, of London, has been urging the same general facts, by a series of scientific demonstrations and lectures. He does not, however, condemn its use in disease, though he assigns it no prominent place in the *materia medica*. It does reduce the animal temperature in fever, but the after effects are often most unpleasant and dangerous. The skillful exhibition of alcohol in certain cases of nervous disease is productive of benefit. It is alleged to be a useful antiseptic, and it has been said to be a conservative remedy, partially doing away with the need of food.

He maintains, however, that we must accept the evidence of the value of alcohol in regard to its sustaining power *sub judice*, and when we come to practical concerns, where there can be no doubt whatever, we must be even more reserved. In the treatment of starvation in cases of stricture of the œsophagus, the very types of cases of the kink under consideration, no more injurious practice can be applied than the administration of alcohol by any means. In such instances alcohol excites the heart, produces febrile disturbance, interferes with the natural secretions, increases cough, and encourages waste. By the side of milk it has no place whatever, neither does it offer a single indication of its value as a food.

In studying the relation of alcohol to disease, no other arguments can, in the opinion of Dr. RICHARDSON, be scientifically offered in support of its use and service, beyond those to which he has drawn attention. Excepting in the cases named, in which alcohol may be supposed to play a useful part, but in which it cannot be placed as standing alone and as an absolute necessity, he would maintain that total abstinence is as sound a practice in disease as it is in health. Certainly no facts, no series of facts, are more remarkable than those which are revealed when the treatment of disease is observed without the use of alcohol as a remedy. It soon comes to be a rule with all observers in this school of thought, that the less they trust to alcohol the less they see reason to believe in it; that even in its position as a medicine it is of all the more useful remedies the least necessary; and that he who willfully leaves its

use to the indiscriminate choice of the sick, or to their ignorant attendants, commits a breach of trust which no professional protection, in this day of awakening knowledge, can for any long time excuse, justify, or guard.—*Med. and Surg. Reporter.*

————:o:————

The Occasional Non-Significance of Albuminuria.

A writer in the *Lancet* observes that the presence of albumen in the urine, even in very minute quantities, is usually taken as conclusive evidence of such a condition of systemic derangement as deserves to be regarded as disease. Professor Leube of Erlangen, considering the fact that a trace of albumen is occasionally present in the urine of patients who present no other evidence of renal disease, examined the urine of a large number of men presumably in good health, soldiers on regular duty, in order to ascertain whether albumen could ever be detected in the urine of those who presented no other morbid symptoms. He examined the morning urine of 119 soldiers, and found a trace of albumen in that of five, in one a distinct quantity, in the others merely a faint, just recognizable, trace. In each case the mid-day urine also contained albumen, and in three the amount was larger than in the morning urine. So far the results are not surprising, since they would seem explicable on the theory that these soldiers were suffering from incipient renal disease, which, as is well known, may be unattended by any indication of deranged health. But it was found that albumen was present in fourteen soldiers out of 119 whose morning urine had been free from albumen. In all these instances the soldiers had undertaken arduous duty, marches or battalion drill, during the forenoon, but no food or drink had been taken during the exercise. No casts or blood were found in the deposit from the urine. The albumen soon disappeared with rest. This fact seems to show that in apparently healthy men exertion may induce slight albuminuria. This opinion was supported by an instance in which the urine of a soldier was for two days free from even a trace of albumen, but on the third, after a fatiguing march, showed obvious quantities of it.—*Med. and Surg. Reporter.*

————:o:————

Death under Ether.

A coal-porter, over fifty years of age, was admitted into the London Hospital for strangulated hernia last week. He was a well-developed man, and had been the subject of inguinal hernia more than three years, but till the last week had always been able to restrain it, and had never worn a truss. He had never experi-

enced any special inconvenience from the rupture till four days before his admission to the hospital, when he was troubled with abdominal pain, complete obstruction of the bowels, and frequent vomiting, latterly becoming fæcal. His general health had been failing in an increasing degree during the last few years, so that he had sought medical advice. When admitted to hospital, he complained much of abdominal pain, and was unable to reduce his rupture. When examined, he presented a large serotal hernia, somewhat tense. During the examination, he began vomiting fecal matter. Taxis having been used, but the symptoms remaining unrelieved, it was considered advisable to place the man under an anæsthetic. The house-surgeon accordingly administered ether, using not more than an ounce and a half in all. The patient came under the influence of the ether rapidly, and without difficulty or adverse symptoms. The local examination was then proceeded with. The patient's respirations were perfectly regular, and his pulse good, when, about six minutes after inhalation began, a sudden spasmodic inspiratory sound was heard, as if he were choking. His tongue was immediately drawn forward with the forceps; but respiration had ceased, although his pulse continued to beat for another half-minute. Silvester's artificial respiration was employed, but no spontaneous inspiratory effort followed. During the artificial respiration, some fecal matter came up into the mouth. These efforts continued a quarter of an hour, but proved useless. At the *post-mortem* examination, the left ventricle was found contracted; but the heart appeared healthy. The lungs were extremely congested. There was fecal staining of the œsophagus and larynx, but no such matter had been drawn into the lungs. The liver was healthy. The kidneys were slightly granular, but not congested. The portion of small intestine which had been strangulated was about twenty inches in length, extremely congested, with commencing peritonitis upon its surface. It must be remembered that in such a case as this, where strangulation had existed four days and was attended with constant vomiting and a feeble circulation, there were many circumstances predisposing to death besides the administration of ether.—*Med. News.*

————:o:————

REMOVAL OF A PORTION OF A CATHETER FROM THE BLADDER.—A man was admitted stating that he had suffered from atony of the bladder, and in his attempts to pass a catheter had left half of the instrument in the bladder. The accident happened six days before he presented himself, and had not caused any urgent symptoms. An examination by the sound showed the presence of a foreign body. The bladder was then injected, and, on the fluid coming out, the portion of the catheter came out with it. It proved to be half of an elastic catheter, covered with phosphates, and corresponding to No. 7 of the French scale.—*N. Y. Med. Jour.*

On the Treatment of Pleurisy and Empyema.

At a meeting of the London Medical Society, in April, after detailing several cases, Dr. D. M. Williams said he would not occupy time in recording the histories of cases of pleurisy with serous effusion, but only remarked that they usually took from six week to six months' time before the fluid was absorbed, if it had been thrown out in any considerable quantity; but, notwithstanding the longest time (three months), such cases have done well in his practice, the lung expanding once more. He felt, therefore, encouraged to treat these with diuretics, iodine, etc. Nevertheless, as an illness of two or three months was often a very serious matter to the patient, sometimes causing the loss of employment, or of business, he had asked himself if there was no way by which they could hinder the effusion of serum, or at least, its accumulating in any great quantity. When they remembered that the sharp stitch in the side in pleurisy, caused by the friction of the two surfaces, was intended to limit the movement of the lungs, we could not but feel that nature had already given them the hint—stop respiratory movements and the mischief is prevented. They had already recognised that principle in peritonitis, synovitis, etc. Here, however, they had to do with an organ whose function could not be stopped with safety to the patient; but he thought they could sufficiently limit the movements of one lung so as to hinder the formation of, at any rate, a large quantity of fluid in the chest, and this he had attempted to do by strapping the inflamed side firmly with plaster, taking care to bring the ends of the plaster to the opposite side of the spine and sternum. The first result of such treatment was a great relief from pain; the next was a subsidence of fever, etc. To say that a few cases had been thus treated successfully was to prove nothing, as it might be reasonably urged that these were slight ones, or only dry pleurisy; a medical friend, however, had, at his request, already treated eight successive cases successfully. Having detailed one case treated successfully in that way, Dr. Williams said that since writing the description of that case he had heard that an American surgeon had claimed all thoracic diseases for the domain of surgery, and treated all such by pressure, but not exactly strapping, while Dr. Fred. Roberts had, he found, already advocating strapping. Again, with reference to empyema, he wished to dwell especially on the condition of the lung after recovery. It is pretty generally admitted that in children under twelve years of age, such cases usually ended well, the lung expanding again, whatever may have been the amount of mischief; while in adults this was rarely the case, the lung being almost always so damaged as to be unable to support life alone. This is surely not a cure in which we can take much comfort, however brilliant the recovery might appear to the

patient and his friends. On the contrary, they should not consider such cases cured unless the lung once more occupied its normal situation. He had asked himself the reason why the lung should expand so easily in children, and scarcely ever do so completely in adults; and he thought the condition of the ribs in children explained it. Thus, in children the ribs yielded rather readily to the atmospheric pressure without losing their spring; consequently, there was not left the same amount of empty space in the chest when the fluid was removed as in an adult, while, at the same time, there was a constant suction power from the tendency the ribs had to resume their natural curve. In the adult the ribs yielded much less readily, but eventually became bent in permanently. Now, it had occurred to him that if they could imitate this, and find some plan of keeping the pleural cavity more or less constantly in a state of vacuum before the ribs bent, without using injurious force, they would help the lung to expand; and for this purpose he had invented a cannula with a very delicate valve, which, by acting only one way, allows fluid or air to escape from the chest, but instantly hinders air entering it. Now admitting that a patient, with this tube in situ, coughs only twice each hour, the force of coughing easily expels fluid out through this tube, while the valve effectually hinders the entrance of air into the pleural cavity. Thus more or less of a vacuum is formed, and in proportion to the amount of vacuum was the aid given to the air rushing through the trachea to expand the lung. The cannula had been purposely made short, in order that it might be worn until the lung expands pretty freely. It is secured in its position by tapes passed through the slits on either side. Seeing, then, that pleurisy, if detected at the commencement, may be greatly relieved, and effusion to any any great extent hindered, by firm strapping, it became exceedingly important to detect it early. There was, of course, no difficulty in doing this when effusion had already taken place, but previous to that he considered it no easy matter to do so, in children. The pain in the side and friction sound, upon which they depended so much in the adult, were of little use in dealing with children, and he had adopted the following plan:—Suppose a child two years old; very cross and feverish, with a slight cough, and these symptoms not explained by any other disease. He wrapped the child loosely in a blanket, and having put it sitting on its mother's knee, waited a minute or two; presently it coughed, and immediately cried. Then he put it sitting upright, and watched carefully; next time it coughed they would notice that it shrank to one side. He placed a warm flannel on that side, and let the mother keep up firm pressure; the child coughed again, but the crying and shrinking were less; and if on very careful examination there was slight dullness, and respiration a little feeble, without crepitation, they might be sure that they had a case of pleurisy; and if that side be strapped the child

would probably have a good night, and be much better next morning. Supposing effusion to have already taken place (and the patient be a child), the fluid should be removed at once if the constitutional disturbance is great, as in all probability it is purulent, serous effusions giving comparatively little indication of their presence unless the quantity of fluid is great; indeed, he had been often surprised at the small amount of constitutional disturbance where he had found a large quantity of fluid, in both children and adults. If a doubt existed, the needle of the hypodermic syringe might be used to explore, as recommended by Dr. Barlow and Mr. Parker; but in an adult he would seek to be guided entirely by the constitutional disturbance, which, he thought, was much greater where the effusion was purulent. If, in a child, a fistulous communication with a bronchial tube had already occurred, and pus was being freely expectorated, he would first strap the side and wait a few days, as that seemed to be Nature's best and most successful mode of removing pus from the cavity of the pleura (while fistulæ through the thoracic parietes almost always ended badly). Should the relief be insufficient, or the strength giving way, he would then tap the side; but, in the case of an adult, he would tap at once, notwithstanding that a fistula had occurred, as he had not seen a single such case do well without tapping. The pleural cavity should be freely washed out with a weak solution of carbolic or sulphurous acid, or iodine, and if, after a week or two, the pus remained fetid, the wound should be enlarged with a probe-pointed bistoury, in order to give exit to any pieces of false membrane or clots of blood which might be decomposing.—*Half-Yearly Compendium*.

—:o:—

Physiological and Therapeutic Properties of Mercury.

The following notice of Dr. Hallopeau's thesis appeared in *La France Medicale* of June 1, 1878:

The subject is an extensive one. To relate the very eventful history of mercury; to give the positive ideas in a chemical and physiological point of view, which are possessed at the present day relative to the absorption, circulation and elimination of this agent; to study its action on the organism by the aid of experimental and clinical research; and finally to point out and justify, in the best possible manner its therapeutic applications, has been the great aim and object of the author.

In the first place he shows by the aid of quotations from authors of very remote periods how mercury was first introduced in the *materia medica*, the oppositions to it, the difficulties it had to surmount, the prodigious abuse of it made by empirics, and even certain physicians. Thus, Torella, Vigo, Nicolas, Masses, Frasca-

tor, Ulrich de Hutten, Antonine Musa, Brassavola, Fallope, Paré and a good many others came respectively to overwhelm it with their condemnations or heap upon it their praises. At the expiration of the sixteenth century its triumph appeared to be assured, and indeed it reigned without opposition in the therapeutics of syphilis, until the end of the eighteenth century; but at this time it suddenly became the object of violent and multiplied attacks. It seemed to undergo the counter stroke of the revolutionary tempest, and was disputed like all the traditions bequeathed by the ancients. Anti-mercurial schools were seen to rise on all sides. Broussais discarded it like all other specifics; Auzais-Turenne opposed it with the object of substituting syphilization; Hermann, of Vienna, went farther and denied the existence of constitutional syphilis, ascribing to mercurialism all the symptoms of the disease. Curious to relate, this strange doctrine found adherents in Germany. Other and more reasonable opposers contented themselves with saying that syphilis tends naturally to cure, that mercury does not modify its course or diminish its gravity, in consequence of which its administration is superfluous and dangerous. Notwithstanding all these attacks, the use of mercury in syphilis is to-day almost universally acknowledged. Thanks to our distinguished Ricord, it is employed by almost every physician in the land, and continues to render every day, the greatest service to humanity.—*Cin. Lancet and Clinic.*

—————:O:—————

On Telegraphists' Cramp.

This affection is described by Dr. Onimus, in the *Gazette des Hôpitaux*.

It is chiefly observed in those engaged in the manipulation of Morse's machine, and seems to arise from the difficulty of coordinating the motions which are required alternately for the formation of the dots and dashes. Much depends upon individual temperament and the condition of the nervous system, as the existence of more or less irritability seems quite as necessary for the production of this cramp as the frequent repetition of the same movements. Some employees who are naturally nervous and excitable have the cramp after only a short time of service, their general health suffering at the same time. The same circumstances operate in writers' cramp, this especially occurring when a great number of letters or despatches have to be executed in a given time, under a state of feverish activity. The direction of the movements also exerts an influence. An employee successively employed the thumb, the index, and the median finger, each of these manipulating during two or three months, but one after the other then being seized with the cramp. He then used his wrist, which after a while also refused

service. As the expeditionary despatches are manipulated by a movement of the entire hand as well as of the fingers from above downward, when these vertical movements had become difficult an employee contrived a means of acting on the lever in a horizontal direction, by means of a thread stretched from a point of support to the lever. For a while he was able to forward his despatches, but these new movements soon became embarrassed, and gave rise to the cramps.

The symptoms of the affection are more easily and more rapidly produced in women. The general symptoms consist principally in palpitations, vertigo, sleeplessness, perhaps impairment of vision (most of the older and laborious employees wearing spectacles), and a sense of constriction opposite the nape of the neck, seeming to hold the back part of the head in a vice. This sensation is not uncommon in men of business rendered ill or over excited in important transactions in commerce, and it is especially met with when attempts are made to force intellectual functions that are already fatigued. To a state of over-excitement succeeds one of depression and melancholy, and moral and physical atony. Memory becomes bad, and, according to some, insanity may, in the course of some years, supervene on this pathological condition. During the progress of this pathological state the transmission of despatches presents some curious peculiarities, dependent on reflex movements produced by habit and in an unconscious manner. The hand does not always obey the determinations of the will; a word badly read is often correctly transmitted. On the other hand, an employee whose mode of transmission is naturally slow is not always, when dozing, interrupted in transmitting to his correspondent the ideas accompanying his half-dreamy state, for he continues to act on the lever and expedite his despatches. In some cases there exists, too, a state of things quite the opposite of spasm and rigidity, for the hand proceeds more rapidly than the will, and performs a series of movements which are coordinated and decipherable, but too rapid. It is especially after the manipulation has lasted for some time that these phenomena may be produced. Normally, it is only after an hour of work that the manipulation attains its maximum of rapidity.

Medical and Surgical Reporter.

————:0:————

The Decimal System of Notation.

Ten is, theoretically ill suited for the radix of a system of notation, because it permits of only one bisection. The half of it is five, an odd number. It also is incapable of any other division. On account of these defects the system is ill adapted to the operations of the shop and market. Although our calculations are universally made in the decimal system, none of our tables of

weights and measures are decimal in any one of their subdivisions. In all departments of trade the current prices have been derived from a process of successive halvings. The shopman reckons by halves, quarters, eighths, sixteenths, and thirty-seconds, and not by fifths or tenths. The yardstick is divided in its practical use into halves, quarters, eighths, etc., by successive bisections. Even the sixteenth of a unit is more commonly used in trade than the tenth. In the stock-exchange, shares change in price by eighths of a dollar, and not by tenths. Even with our decimal system of money, we require coins for half and quarter of a dollar for practical use in trading. Almost the entire price-list of our stores advances and recedes by these fractions of a unit formed by successive bisections.

The attempt by the French to compel the use of the decimal system shows the difficulty of such an undertaking. Popular necessities compelled the introduction of binal divisions. The prices of their money and stock markets are still frequently quoted in quarters and eighths. The attempt to divide time decimally was a failure. After trying to give to their decimal metrology a universal application, they have been compelled to modify it in many of their weights and measures. From the inherent defects of a ten scale, all attempts to introduce an international decimal system of weights and measures have met with strong opposition.—T. F. BROWNELL, in *Popular Science Monthly* for August.

:O:

On Pruritus Vulvæ and Diabetes.

By ALFRED WILTSHIRE, M. D., M. R. C. P. Lord.,

A FEW years ago, at a meeting of the Harveian Society, I called attention to the frequent association of pruritus vulvæ with diabetes. As continued observation confirms and strengthens the statements then made, and, as my observations have never been made known otherwise than as above stated and in my lectures, I desire again very briefly to call attention to and emphasize the fact that pruritus vulvæ is often the only symptom of diabetes, and to point out the desirability of a systematic examination of the urine for sugar in suspicious cases.

Diabetes is only one among many affections with which pruritus vulvæ may be associated; but notwithstanding that it is mentioned in some books as a cause of vulvar itching, it is nowhere, that I am aware of, stated with adequate prominence.

Excepting itching, there may be no symptom whatever of diabetes — neither polyuria, loss of flesh, nor large appetite; and it is not therefore a matter for surprise that the underlying diabetic affection frequently remains unsuspected.

The observations of friends who have become acquainted with my views are confirmatory of them, and show that there is a more frequent connexion between diabetes and pruritus vulvæ than is generally believed. Accordingly, it seems desirable that further attention should be directed to the fact seeing the gravity of the more important affection. It is hoped that a wider diffusion of the knowledge may prove useful to many.

Though matter of high interest, I am not concerned at present to discuss the pathogeny of diabetes; but regarding it from a purely clinical aspect, it is difficult to avoid the conclusion that there are at least two (if no more) forms of diabetes; or, to put it in another way, that sugar, or some allied body equally capable of reducing copper, on the test being applied in the usual way, may often be found in the urine of stout, florid (gouty) persons, as well as in the lean, wasted people who are looked upon as classical types of the disease.

I have at present under my care at St. Mary's Hospital an excellent illustration of this fact. When the patient, a stout, florid middle-aged woman, first came under my care some months ago, she was tormented with violent itching of the privates. Suspecting diabetes, I had the urine examined, and then, and ever since, it has contained an abundance of sugar. She rarely passes more than a normal amount of urine, looks as hearty as can be, and from the first application of the treatment—a borax lotion—has almost lost the itching. As the object of this short paper is merely to put others on the track of diabetes through the pruritic symptom, I will add no more, but await hopefully the statement of the experience of others.—*London Lancet*.

Wimpole-Street, W.

—————:O:—————

Science in Vanderbilt University.

It will be seen that Prof. Winchell has simply accepted the views that now prevail in the scientific world regarding the time that men have inhabited the earth. The old notions upon the subject are now no longer entertained by intelligent men, because the scientific evidence is overwhelmingly against them. How long the human race has occupied the globe is an open question, but two things are settled: 1. That man has a much higher antiquity than theology has been in the habit of teaching, and has been currently believed; and, 2. That the investigation belongs entirely to science, and must be pursued and determined on the basis of scientific evidence. Prof. Winchell argues the subject strictly as a scientist, but in no spirit of antagonism to religion or to the authority of the Bible. His argument, indeed, is rather an attempt to harmonize the teachings of Scripture with the conclusions of science; a task which he had previously undertaken in a more

general way, by the publication of an able book on "The Reconciliation of Science and Religion." But he has met with the not unusual treatment of peace-makers, who miscalculate the temper of the strife they would compose. The stupid Southern Methodists that control the university, it seems, can learn nothing. The fight over the antiquity of the earth has but just closed. The theologians battled long and fiercely against the geologists on this question, but have been so utterly routed that hardly a man of them can now be found who holds to the old belief. Prof. Silliman led the scientific movement upon that subject in this country, and so profound was the theological alarm that eminent doctors of divinity implored him with tears to desist from the impious crusade, because, if successful, it would be certain to destroy the Christian college with which he was associated. That institution had the good sense not to disturb the distinguished teacher in his work, but to abide by the results of investigation; and who can now be found so foolish as to regret its course? But half a century later, when an analogous question arises, Vanderbilt University adopts a different policy, follows the exploded precedents of past centuries, and puts forth its power to muzzle, repress, silence, and discredit the independent teachers of scientific truth.—PROF. YOUNG, in *Popular Science Monthly* for August.

—————:O:—————

Editorial.

Buffalo Medical and Surgical Journal, Vol. xviii.

It is now seventeen years since we commenced our first efforts to furnish the profession of Buffalo and vicinity a medium of communication with the medical public, and with the present number we reach Vol. XVIII. Imperfections and failures have given variety to our more general successes, teaching us how we depend upon the profession for the reputation, interest, value and continuance of the Journal. If the physicians of Buffalo and vicinity take interest in and support the Journal by their contributions and subscriptions, their influence, example and money, the success of the enterprise is assured. By their aid the editor has been able thus far to conduct their organ, and from long association has acquired a personal interest in its success and continuance, and often made sacrifices of time and capital to insure its permanency. He has at times grown weary of the labor and tried to transfer it to more active hands, but the depression in general business has affected the financial receipts of the Journal to such degree that young and new-made fortunes were inadequate to pay the publication or furnish cash for the unpaid subscriptions, now, some of them many years in arrears. These appear

small, singly, but in the aggregate amount to several thousand dollars, and attention is called to this fact in the trust that our friends and subscribers will realize the necessity to the Journal, of new subscribers and "*pay in advance.*" It will thus be seen that the past seventeen years of our Journal has been attended by anxieties and embarrassments, though yet always sustained and comforted by a large number of faithful and tried friends whose unfaltering support has been an unfailing trust.

Thus much for our past history; though it contains no mention of achievements and other compensations, while we leave each reader to judge for himself of our real success, after he has considered the medical atmosphere, where our Journal has been obliged to breathe.

Vol. XVIII commences its life at a time of great activity, never perhaps in the history of our profession has medicine and surgery been undergoing more rapid or more progressive change. Great principles are being settled, practical questions in constant application are now preeminently considered, and the "millenium" of our profession seems just at hand. We shall doubtless be able to chronicle its full establishment in the new volume. Our readers are invited to aid in the great work and send in copy at an early date.



THE August *Popular Science Monthly* has a varied and attractive table of contents. The number opens with a continuation of Prof. Du Bois-Raymond's address on "Civilization and Science," the special subjects of discussion in this installment being "The Technico-Inductive Period," and "The Dangers which threaten Modern Civilization." The next article is a brief but forcible address, delivered at the Harvey Tricentenary by Prof. Huxley, who, on the strength of his own investigations, gives the most emphatic indorsement to Harvey's title as one of the world's greatest discoverers. The third article in this number is the first of two illustrated papers on the teredo, or ship-worm—the creature which makes such havoc of our marine timber. The author, Dr. E. H. von Baumlauer, brings to his subject the results of a long course of observation and experiment, carried on and completed under the auspices of the Government of Holland. Following this is an interesting article by Mr. G. H. Lewes, author of "Problems of Life and Mind," on "The Dread and Dislike of Science." After showing the wide-spread diffusion of such a sentiment, he traces its origin to the united operation of a variety of causes, especially ignorance of what science really is, and the disinclination of most people to have their cherished beliefs disturbed. Under the title "Man and his Structural Affinities," Prof. A. R. Grote, of Buffalo, Vice-President of the American Association, discusses our relationship with the apes, illustrating the subject with a variety of new and accurate representations of ape anatomy and physiognomy. "Voluntary Motion," by Prof. Payton Spence, M. D., is a paper of great interest, especially to teachers, as

it brings out in a very striking way the enormous importance of our inherited aptitudes in the process of education.

"Curious Systems of Notation," by T. F. Brownell; "A New Photographic Process" (illustrated); "Monera, and the Problem of Life," by Dr. Edmund Montgomery; "Composite Portraits," by Francis Galton, F. R. S. (illustrated); "Illustrations of the Logic of Science," VI., by C. S. Peirce; and the third of the series on "Poisons of the Intelligence," by Charles Richet, make up, with a fine portrait and pleasantly written sketch of Mr. T. A. Edison, the body of an entertaining and instructive number of this valuable magazine.

Prof. Youmans opens the editorial department with a strong article on "Religion and Science at Vanderbilt University," in which he sharply criticises the inconsistency and bigotry of that institution in turning out Prof. Winchell. "American Influence in Civilization," and a graceful and appreciative tribute to the memory of Mr. George S. Appleton, recently deceased, complete the Editor's Table. The remaining departments maintain their usual high standard of excellence.

:O:

Items in Brief.

—The announcement of the Massachusettes Medical Society's prize for next year has been made by Dr. Goss. The first of these annual prizes has been carried off by Dr. Thomas Dwight, who presented a paper entitled The Identification of the Human Skeleton. We understand that several essays of exceptional merit competed for the prize. The following are the terms upon which the competition is based:—

The committee on publications are authorized to offer the sum of *two hundred dollars* as a prize, or honorarium, to any one Fellow of the society who shall give to the satisfaction of said committee, on or before the 15th of April next, in an essay or report (worthy of a prize), the best and fullest evidence of any original or meritorious *professional work*, done by himself during the two years next preceeding said date, in experimental investigations, scientific researches, or clinical observations.

Papers may be sent to Dr George C. Shattuck, 6 Newbury Street, Boston, on or before April 15, 1869, with motto and name, as usual in such cases.

—M. Galewowski presented at a session of the Society of Biology at Paris, in March, a new mydriatic—*Duboi ia myopsorida*, a plant belonging to the scrophulariaceæ, from Australia. It is said to be stronger and more lasting in its effect upon the pupil than atropia, and is without undesirable constitutional effect.—

—H. W. Williams, M. D., Professor of Ophthalmology in Harvard Medical College, says that one drop of a solution of two grains of sulphate of eserine in an ounce of water, instilled beneath the eyelids begins to contract the pupil within fifteen minutes, and produce spasm of the accomodation which often

reaches a high degree in a few minutes, and there is often twitching of the eyelids and sometimes empra-orbital pain, usually slight. These symptoms are usually at their height within an hour, after which they diminish, and at the end of the second hour have in most cases disappeared, with the exception of the contraction of the pupil, which persists for eight hours or longer. In his experiments with chloe-hydrate of pilocarpine, the active principle of jaborandi, an equivalent degree of contraction of pupil and myopia was produced with less accommodative spasm, supre-orbital pain and conjunctival irritation. He considers these agents as unquestionably capable of great service, has used them in perforating ulcer of the cornea, commends their use in paralysis of accommodation and mydriosis, in glaucoma and sympathetic ophthalmia in connection with other surgical means. In iritis they would be harmful. Prof. Nalt in his work on Diseases and Injuries of the Eye says that Calabar Bean has not been useful in his hands and is not to be relied on to draw in a prolapse of the iris after cataract and other operations. The internal dose of powdered Calabar Bean (*phyrostigma*) is one to three grains, of the extract, one-eighth to one-sixth of a grain in tetanus. The sulphate of eserine is ten to fifteen times more powerful than the extract.

—Carl Bartels, Professor and Director of the Medical Clinic at the University of Kiel, died on the twentieth of June, at the age of fifty-five. He was the author of the excellent contribution to Ziemssen's Cyclopædia on Structural Diseases of the Kidney.

:o:

Rural Hygiene.

The present season naturally suggests the feasibility of a temporary absence from the city and its possible advantages. Although the practice of ruralizing is becoming more and more extensive, the evils which have become associated with it have been proportionally magnified. In consequence of the demand for country board, a large number of farmers have thrown open their doors for customers, and view with the country hotel-keeper in the general unsanitary condition of their premises. Even in the so-called model farm-houses, the first-class country hotels, and in the larger establishments of the more fashionable resorts, we often find the foul and reeking privy vaults in close proximity to a well; the rooms, if not small and close, at least unventilated; while the dietary is stamped with the most objectionable features of boarding-house management. Under the circumstances, except for the outdoor life which the season invites, many of the guests would suffer from serious attacks of illness. The religious camp-grounds, in many instances, need much more sanitary supervision to make their continued occupation from year to year free from danger.

All these are certainly drawbacks; but there is no doubt that the benefits of ruralizing are sufficient to warrant every hard-worked, nervous, over-

strained Metropolitan in being temporarily absent from his home—free for a time from business cares, and free to enjoy a change of scene and condition, which, at this season of the year particularly, he so much demands.—*Med. Record.*

—:O:—

Counter Prescribing.

From all accounts it would appear that the practice of counter-prescribing by druggists is on the increase, especially in the southern and eastern part of the city. Would it not be well, in the coming fall, for a committee of the County Society to investigate the matter and suggest a remedy? If these counter-leeches still persist in defying ordinary decency, they may only hasten the time when physicians will keep their own medicines.—*Med. Record.*

—:O:—

Books Reviewed.

Fifth Annual Report of the State Commissioner in Lunacy.
Albany : 1878.

The report of the Commissioner in Lunacy, presented to the Legislature in January last contains much interesting information and is in a concise form, a brief and well digested review of the condition of the Insane in the State of New York.

In view of the growing disposition to care for the chronic insane in county asylums, the commissioner wisely recommends the appointment of a non-partisan board of managers, with a long term of office, to secure the benefit of experience, rather than the present method of frequent changes of management due to political influence and hence having most of the undesirable features of political management.

Dr. Ordronaux also calls attention to the need of a State Epileptic Asylum. In the various State and County Asylums there were reported last year 557 epileptics, a class of patients particularly undesirable for association with the Insane.

Some interesting statistics are given in the report. In the County Asylums we find that the cost of keeping the insane varies from ninety cents to three dollars per week. Otsego County reaching the extremely low limit and the Counties of Essex, Montgomery and Westchester reaching the higher one.

The weekly cost of maintenance of pauper patients in other institutions is as follows :

New York County Idiot Asylum,.....	\$3.15.
State Asylum for Idiots, Syracuse,.....	4.06.

State Lunatic Asylum, Utica,.....	4.00.
Hudson River State Hospital, Poughkeepsie,.....	5.50.
Willard Asylum, (Chronic),.....	2.88.
State Homœopathic Asylum, Middletown,.....	4.50.
State Asylum for Insane Criminals,.....	4.00.

Some excellent recommendations are contained in the report, especially in reference to the care of the chronic insane, and the State Inebriate Asylum. We regret that we have not room for a more extended notice. The work which the Commissioner is intended to perform is an extensive and important one and no one could do it more intelligently or conscientiously than the present excellent and genial Commissioner, Doctor Ordonaux.

Physics of the Infectious Diseases. By C. A. LOGAN, A. M., M. D.
Chicago: Jansen McClarg & Co. 12mo. pp 212.

An experience as a member of the Kansas State Geological Survey, in charge of the department of Botany and Sanitary relations, and a residence in South America, as United States Minister to Chili, has led the author to observe that the prevalence of certain acute infectious diseases is associated with certain general physical conditions. His desire to direct attention to this subject and to make record of the peculiar physical conditions and sanitary influence of the climate of the volcanic regions of South America, has led to the writing of this volume. The phenomena attending earthquakes, the effect of rains, ozone investigations, prevalent diseases and their origin, are topics that are attractive to the reader. The writer states that vaccination in Chili has proved inefficacious in preventing small pox and that repeated attacks of this disease have been experienced by many individuals there.

The book will be interesting to readers of sanitary literature.

Congenital Occlusion and Dilatation of Lymph Channels. By
SAMUEL C. BUSEY, M. D., Professor of the Theory and Practice
of Medicine in Medical Department of the University of George-
town, etc. New York: Wm. Wood & Co. 800. pp. 187.

A series of eighty-eight cases of diseases affecting lymph channels are here presented, the majority of which have been obtained from foreign sources. Considerable labor must have been involved in collecting these cases, and in preparing this monograph. The subject is one upon which information is desirable as little has been known concerning it. The volume is for the most part a re-production of what has recently appeared, in serial form, in the American Journal of Obstetrics. Numerous wood cut illustrations accompany the translated reports of cases and are quite an aid to the reader. The statements of the author are instructive and indicative of the wide re-search he has made.

Atlas of the Diseases of the Skin. Part I. By BALMANNO SQUIRE, M. D., Surgeon to the British Hospital for Diseases of the Skin. London: J. & A. Churchill. Demy Octavo. pp. 89. With four lithographic plates.

This is the first of a series of parts the author intends to publish from time to time on diseases of the skin. It is his intention to represent in the lithographic plates accompanying the text, the life size appearance of diseases without attempting to show any greater extent of surface than an octavo page will allow. The subjects considered in the first number are nævus and psoriasis. The authors method of treatment of nævus by repeated scarification is thoroughly presented and his success has been gratifying. Other methods are given but his own is doubtless preferable in ordinary cases. Ten years ago or more, distinguished authors published an atlas upon skin diseases and a desirable contribution to the literature of this department may be looked for in the new series he has now undertaken.

The OBSTETRIC GAZETTE, Vol. 1.—No. 1, July, 1878 is the title of a new monthly, edited by Edward B. Stevens, M. D., of Lebanon, Ohio, and is devoted to Obstetrics and Diseases of women and children. Dr. Stevens has had considerable practice in the editorial chair, being connected for some years with the *Cincinnati Lancet*, and is therefore ably qualified for the work he has undertaken. The first number is rich in articles of practical value and we can heartily extend to the editor our congratulations and hope that it may prove a grand success.

The *Cincinnati Lancet and Observer*, and *The Clinic* have consolidated, and will hereafter appear as a weekly under the name of the CINCINNATI LANCET AND CLINIC. Drs. J. C. Culbertson and J. G. Hyndman are editors, and under such able management success is assured to the new enterprise. The first number is well printed, on good paper, filled with readable matter. Each number will consist of sixteen pages, published every Saturday, at \$3 50 per annum.

:o:

Books and Pamphlets Received.

Transactions of the American Gynecological Society, Vol. II, for the year 1877. Boston: Houghton, Osgood & Co. 1878. Buffalo: Peter Baul & Bro.

Report of the Commissioners of Education, for the year 1876. Washington: Government Printing Office. 1878.

Nervous Diseases. Their Description and Treatment, by Allan McLane, M. D. Philadelphia; Henry C. Lea. 1878. Buffalo: Theodore H. Butler.

Visions, study of false sight, by Edward H. Clark, M. D. Boston: Houghton, Osgood & Co. 1878. Buffalo: Peter Paul & Bro.

A Manual of Operative Surgery, by Lewis A. Stinson, M. D. Philadelphia: H. C. Lea. 1878. Buffalo: T. H. Butler.

Litholapaxy, or rapid Lithotrity with Evacuation, by Henry J. Bigelow, M. D. Boston: A. Williams & Co. New York: Wm. Wood & Co. 1878.

Antagonism of Alcohol and Diphtheria, by E. U. Chapman, A. M. M. D. Brooklyn Union Argus Printing Establishment. 1878.

How to take care of our Eyes, by Henry C. Angell, M. D. Boston: Roberts Brothers. 1878. Buffalo: Peter Paul & Bro.

Atlas of Skin Diseases, Part IV, by Louis A. Duhring, M. D. Philadelphia: J. B. Lippincott & Co. 1878.

American Journal of Obstetrics and Diseases of Women and Children. July, 1878.

American Journal of Insanity. July, 1878.

American Journal of the Medical Sciences. July, 1878.

Economy and Necessity of a State Board of Health, by L. D. Waterman, M. D. Indianapolis. 1878.

Remarks on Ovariectomy, by J. W. Rosebrugh, M. D.

Certain Symptoms of Nervous Exhaustion, by George M. Beard, M. D. Reprint from Virginia Medical Monthly. June, 1878.

A Case of Vaginal Ovariectomy, by Wm. Goodell, A. M. M. D. Reprint from Vol. I, Gynecological Transactions. 1878.

Remarks on Social Conservatism, by J. W. Singleton, M. D.

Address before the Tioga Medical Society, by J. W. Singleton, M. D.

The Obstetrical Forceps, When and How to Use it, by Geo. J. Englemann, M. D.

The Hystero-Neuroses, by Geo. J. Englemann, M. D. Reprint from Vol. II, Gynecological Transactions. 1878.

A Hystero-Psychosis, by Geo. J. Englemann, M. D. St. Louis. 1878.

Medical Register for Albany and other Counties for 1878-9.

Application of Pressure in Diseases of the Uterus, by V. H. Taliaferro, M. D., Atlanta.

The Functions of the Anal Sphincters, so called, by James R. Chadwick, M. D.

Cases of Double Uterus and Vagina, by James R. Chadwick, M. D.

The Soft Palate, its value in Diagnosis, by Wm. A. Love, M. D.

Amputations and Excisions of the Cervix Uteri; their Indications and Methods, by J. Byrne, M. D., R. C., S. E.

Vascular Tumors of the Female Urethra, by A. Reeves Jackson, A. M., M. D.

Old Age, its diseases and Hygiene, by L. P. Yandell, M. D.

Eulogy upon Lunsford P. Yandell, M. D., by T. S. Bell, M. D.

New Treatment for Spine Diseases, by Meigs Case, M. D.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

SEPTEMBER, 1878.

NO. 2.

Original Communications.

—:O:—

ART. I.—Cancerous Disease of the Lungs. Report of a case before Buffalo Medical Association. By J. FOWLER, M. D.

Mrs. B. was nearly 64 years old, and a widow for five years. She was the mother of four children, three of whom died of pulmonary tuberculosis when aged respectively, 18, 21 and 30 years.

She stated that she had always enjoyed good health until my first visit, April 11; except at irregular intervals during the last three or four years had experienced some pain in left side extending to her hip. It caused her little or no inconvenience, nor did she think it worth while to seek medical advice. Her father died at the age of seventy-four or five of pulmonary disease, and her mother of pulmonary phthisis, aged eighty-four years.

At my first visit, April 11th, I found her suffering from pain in the left infra-axillary region, with a considerably febrile disturbance and chills, said she, "my present illness is due to the fact that a few days ago I was caught in a shower and got my feet wet."

Upon examination I found slight dullness over the left axillary region with only an appreciable diminution of the respiratory sounds of the same side. These normal modification sounds were so very slight, that it was with much difficulty I determined upon

their presence. My diagnosis was pleurisy, and her treatment was sudorific, and directed to the prevention of serous exhalation.

On the following day her married daughter reported her mother was much improved and very comfortable. For five or six days she continued to convalesce, and very promising hopes were entertained of her speedy and complete recovery.

Upon the seventh day her condition was much worse, quite like that at the time of my first visit; a similar treatment was pursued with similar results for at least a few days.

Subsequent to this date the patient did not come under my observation till May 18th, when I learned that for the first time she found it necessary to remain in bed.

Inspection of her chest showed marked deformity, the right side was bulging and prominent, with a corresponding depression of the left. This was so great that the spinal column participated in the deformity, there being marked lateral curvature. The respiratory sounds of the right lung were exaggerated but not otherwise abnormal, while those of the left could scarcely be heard. There was complete flatness below the third rib. A hypodermic needle was thrust into the pleural cavity and immediately filled with a clear straw colored serum. Upon the same day thorocentesis was performed, and by estimate fully three pints of serum were removed. The withdrawal of the instrument was accompanied with coughing so common under such circumstances.

There was nothing unnatural in the appearance of the serum as differing from ordinary pleuritic effusion.

Much relief was experienced after its removal, the patient breathing much easier and expressing herself as feeling very comfortable. The side was secured by adhesive plaster in the usual manner. Three or four days later it was evident that she was gradually losing strength and becoming more feeble. Emaciation progressed very rapidly. She coughed occasionally and expectorated brownish sputa in small quantity.

Seven days after the first operation I again operated, removing this time about one pint. The fluid was a little muddy and mixed with blood. On removing the trocar there was considerable hem-

orrhage. I covered the point of puncture with plaster and applied collodion.

This did not seem to control the hemorrhage only for a few seconds, when it gushed from beneath the plaster and ran down her side in a stream. I began to feel guilty of having punctured the intercostal artery. I then passed a strip of adhesive plaster nearly around her body making a considerable pressure upon the seat of hemorrhage which effectually controlled it. I waited expecting the vessel might empty its contents into the pleural cavity, but this did not occur. After the withdrawal of this fluid the patient seemed to feel somewhat relieved, but her comfort was only temporary, lasting but a few hours. From this date her dyspnœa rapidly increased and she became more and more exhausted till the time of her death, June 7th, ten days after the second operation.

From the date of the first operation she complained of pain in her left shoulder and at the point of puncture, but during her whole illness the pain was not excruciating, one grain of morphine in divided doses being sufficient to control it for a week. For two or three weeks before the disease terminated fatally her pulse was feeble and rapid, beating from 120 to 130 per minute. Her emaciation was rapidly progressive, and the skin presented a yellow tint. She had night sweats, occasional diarrhea and febrile paroxysms with chills and palpitation, and as before stated, some cough without much expectoration.

These symptoms, with her family history, led me to suspect the presence of phthisis, but I was unable to satisfy myself that such was the case. From the date of the second operation to the time of her death the nature of the case remained in doubt. To reach a more satisfactory explanation, a post-mortem was solicited and secured. Dr. Pettit and myself carefully removed the lungs. The left was firmly adherent to the thoracic walls both posteriorly and laterally, and was removed with much difficulty. A portion of the ribs and a part of the pericardium were also removed and left in their normal relations to each other. The left lung, except at the extreme apex and internal lateral border is a solid cancerous mass—scarcely a vestage of it capable of receiving air during the

act of respiration, the bronchial tubes participating in the diseased action. The lung was submerged in the pleuritic fluid, and is a remarkable instance of an organ being infiltrated with a new formation, and at the same time diminished in size. The right lung was greatly dilated and filled with nodular deposits in sizes varying from a pea to a walnut, but none of them broken down. The cardiac surface of the pericardium is smooth, and on inspection presents no nodular growth. Upon pressure however, distinct small nodules can be felt, they are external to the walls of the sack although attached to it. The heart we thought to be rather small but otherwise healthy. Louis observed that the hearts of persons dying of cancer of the lungs, were below the average size.

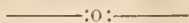
Although it was our intention, we regret not having examined the condition of other organs, but judging from the patient's history, there being no evidence of malignant disease existing elsewhere with the pathological anatomy it seems reasonable and fair to presume the left lung or pleural surface to have been the seat of the disease.

Physical examination has contributed its share of information when it tells us whether the lung be solidified wholly or in part, and whether the pleural cavity contains fluid. Beyond that it offers no definite information. A lung may contain a large number of cancerous nodules without producing suspicious sounds, except to exaggerate the normal ones. The absence of pain is quite characteristic of cancer in this situation, and it is possible that the act of puncturing the diseased mass caused some of the pain she experienced. The hemorrhage following the second effort at paracentesis came from the cancerous mass into which the trocar was carried. The only symptoms that would be likely to lead us to suspect malignant disease in the case reported, were the advanced age of the patient, the peculiar tint of the skin or cancerous habit, and rapid emaciation, but these associated with less important ones would not in any single case be sufficient to fix a diagnosis.

Rokitansky once advanced the opinion that tuberculosis and cancer did never coexist, but later, modified the statement and said that they rarely coexist. This woman is believed to be an offspring of tuberculous parents, has borne tubercular children.

Cancer of the lungs is rarely observed, and then it usually appears as secondary deposit and is comparatively easy of diagnosis. But in cases when cancerous disease is not found to exist in other parts of the body, and the symptoms direct attention to the pulmonary organs as in the case reported, it becomes difficult of diagnosis, and the majority of cases Reynolds says, admit of no diagnosis.

Medullary Carcinoma or the *Encephaloid* form is the variety usually attacking the pulmonary organs. *Scirrhus* is said to be rare, and *Colloid* almost never seen.



ART. II.—Abstract of the Proceedings of the Buffalo Medical Association, Aug. 6th, 1878.

The President, Dr. Thomas Lothrop in the Chair: Present, Drs. Rochester, Cronyn, Samo, Bartlett, W. W. Miner, Barnes, Brecht, J. F. Miner, Fowler, Howe, and by invitation Dr. Hartwig.

The minutes of the last meeting having been read and approved, Drs. A. M. Barker and Mary B. Moody were elected members. Dr. Bartlett, the essayist for the evening, was called upon and read the following paper on Accidental Hemorrhage.

TREATMENT OF ACCIDENTAL HEMORRHAGE.

Mr. President and Gentlemen of the Association:

The brief time allowed me to prepare my paper has prevented my making extensive investigations into the literature of the past regarding the ancient treatment of accidental hemorrhage; and, your professional reading has made you familiar with much which I gladly omit. I shall seek the virtue of brevity and draw mainly upon my own experience in the treatment of such accidents.

I suppose it is expected that members who offer papers here, particularly those whose experience covers a score or more of years, will rehearse the special treatment by which they have succeeded in difficult and exceptional cases. We owe this to the young, aspiring company which has joined us in the last few years. We should tell of our difficulties and the means by which we surmounted

them, when all our previous knowledge, and all the wisdom of the books failed to aid us.

I shall confine my remarks to hemorrhagic misfortunes which precede, accompany, or follow physiological or pathological changes, and first of all refer to Epistaxis.

Nose-bleed is, perhaps, the most common of all hemorrhages, and often proceeds from trifling causes, especially in those of hemorrhagic diathesis. Not unfrequently, it is positively alarming from its copiousness and the failure of attempts at suppression. Occurring in the course of certain phlegmasiæ, as for instance, typhoid fever, it may decide the case adversely to the patient. It is to a certain extent, perhaps, salutary in some cases, but excessive losses are always detrimental.

The means usually recommended and employed are cold, styptics, as alum, salts of iron, lead, copper; position of head, packing of the nostrils with cotton or other fibrous material, with or without styptic solutions; plugging of the posterior nares by similar materials drawn into place by a flexible catheter or the instrument of Bellocq; external pressure in divers irregular ways; the elevation of hands above the head; and, finally by astringents addressed to the general circulation. In spite of these varied means, death, not unfrequently follows epistaxis, either by sudden collapse or the influence exerted upon the course of existing disease.

The means I have found singly and combined to be an effectual remedy for epistaxis is pressure external or internal. The experience of more than twenty years has convinced me that the ordinary forms of styptic treatment—or packing as ordinarily practiced are wholly unreliable in cases at all severe, or appearing in the course of disease.

In June 1863, I had charge of a case of typhoid fever occurring in a phthisical young gentleman residing on Seneca street, near Michigan. The disease was protracted and the patient became exceedingly feeble from diarrhea and loss of digestive power. Early one morning, I was called to find him bleeding from the nose to a most alarming extent. I used styptics, plugged the anterior nares, and with the assistance of an eminent physician, now deceased, tightly closed the posterior nares—all these proceedings

failed to do more than check,—they did not stop the hemorrhage. In certain positions the loss, drop by drop, passed outward, in others inward. General treatment had no perceptible effect, and after 36 hours perseverance I found my patient rapidly failing. In this dilemma I removed all the packing from the nares, when the slow drop, drop, passed outward. At last by pressure applied to the angular branch of the external carotid, I had the satisfaction of finding the hemorrhage fully controlled. This I accomplished by application of the thumb and finger at the lower border of the *Ossa Nasi* externally. Temporary removal of pressure was followed by hemorrhage, and to secure continuous pressure, I shaped the jaws of a spring clothes pin to fit the nose, removing a portion of the wire spring to lessen pressure. This simple tourniquet remained in place and the patient recovered. Satisfied, by this experience, of the doubtful utility of packing in the usual way, I felt quite safe until a case of nasal hemorrhage occurred in a patient about 14 years old, residing on Scott street, near Washington. The lad had suffered previously, and his mother did not feel alarmed until he fainted from loss of blood. Before my arrival he slightly rallied only to sink exhausted by fresh bleeding. He was pulseless, sightless, breathless, and to all appearance dead. I forced some whiskey down his throat and practiced artificial respiration. As he gasped, I passed a sponge tent, intended for other use, into the right nostril from which I supposed the blood had flowed. It soon expanded and filled the nostril posteriorly and anteriorly, completely controlling the hemorrhage. I left the tent in position forty-eight hours; on removal, there was no loss of blood, and I had the pleasure of being assured years afterwards that the treatment had been radically successful. Since that date, August 1863, I have used the sponge tent in all alarming cases of hemorrhage of the nose. My cases number 27, comprising those occurring in Typhoid, Diphtheria, Scarlatina, traumatic injuries and causes not capable of tabulation. I think I may fairly claim originality in this proceeding.

Another form of accidental hemorrhage is that known as Alveolar, following the extraction of teeth. Instances of death are quite frequent from this cause. I recall a case in which I used a

treatment somewhat novel. The patient was a soldier, discharged for sickness and on his way to friends at the West. He had suffered from acute hepatitis and had excessive pytalism, in which condition a tooth was extracted by a dentist. When seen by me, he had bled apparently five or six pints, and the blood was passing in a fine needle-like stream from the inferior maxillary. Every effort to arrest it had been made, apparently, by styptics, etc, and still the hemorrhage went on. Finding plugging the cavity of no avail, I procured a large cork and hollowed it so as to clasp the lower edge of the inferior maxillary, just back of the dental foramen, to compress the inferior dental. Pressure was then made by a band carried over the head, a small cork tapered to pass well down upon the bottom of the cavity, the jaws closed so as to make pressure upon it and the band tightened to make pressure upon the dental artery externally. Hemorrhage ceased and did not return. I recommend plugging the cavity left by the removed tooth, with a slender cork, which has first been conveniently spitted upon an ordinary dining fork. This is very convenient for keeping the cork in place, and the patient is advised to keep the jaws firmly compressed.

Hemoptysis is another form of hemorrhage which is frequently exceedingly difficult to control, and, for which numberless remedies have been proposed. It has been my lot to attend a very large number of such cases and watch the effect of many remedies.

For ten years past, I have used the following formula.

R:	Tr. Digitalis,	. . .	ʒis.	
	Ol. Terebinth,	. . .	ʒiij,	
	Ol. Ment. Pip.	. . .	gtt-x.	
	Acidi Sulph. Ar.	. . .	ʒiij,	
	Alcoholis,	. . .	q. s.	
	Ad fac.	. . .	ʒij.	M.

Dose 40 to 60 drops well mixed with sugar, to which one or more tablespoonfuls of water may be added, every two, three or four hours, according to urgency of the hemorrhage. I know of no combination that all approaches it in efficiency. Acids,—Tannic, Gallic, Sulphuric,—Turpentine, Ergot, Lead Acetate with or without opium, are all greatly inferior in their effects.

In Hematemesis, Tr. Ferri Chloridi has proved the most efficient remedy. In Hematuria, Tr. Benzoin Co. and Tannic Acid. I have never attributed any special utility to Ergot as a haemostatic, except in certain forms of Uterine Hemorrhage. In the form of Ergotine it may be used hypodermically with advantage, but the Tincture and Extract are very unreliable. It is very often rejected by the stomach, particularly if combined with opium or sulphuric acid.

Umbilical hemorrhage, or bleeding from the divided umbilical cord, is a very frequent misfortune and occurs when apparently every precaution has been taken by careful ligation. Many infants die from this cause, and many are rescued by the merest accident. I have found the plan of enclosing a small segment of the cord in a second loop of the ligature, a perfect safeguard. It compels the formation of a clot of blood between the two points of ligation, and if carefully done may always be trusted.

It is a trifle difficult to draw the line between accidental and unavoidable uterine hemorrhage. The position of the placenta when centrally implanted is itself an accident, and hemorrhage, in such circumstances should be classed as accidental.

No more important subject could occupy the hour, than the consideration of Uterine Hemorrhage. To its observation the best minds of our profession have given earnest and continuous thought. Numerous are the plans, remedies, and devices for restraining these hemorrhages, and fortunately now-a-days in a very large number of cases some one of them succeeds. Hot water injected into the uterus has been highly praised in post partum hemorrhage from whatever cause. I think it has sound philosophy in its favor. The practice of introduction of astringents notably Sol. Ferri, Per-Sulph. by injection, has high professional sanction, and, yet seems hardly devoid of danger. We need further experience before deciding affirmatively in its favor.

June 28th, 1871, I was summoned in haste to attend my patient, Mrs. D., residing upon Carroll street, near Chicago. On my arrival, I found Dr. A. H. Briggs had also been called and he kindly consented to remain and assist me in the conduct of the case. Examination showed a foot presentation, but I was struck

by the extraordinary œdema of the patient; particularly of the lower extremities. The feet were enormous transparent sacks of water, and the whole body anasarcaous. In an hour, unaided by special art, a child was born, and it was then evident that there was twin pregnancy. The hemorrhage was only ordinary until birth of second child when it became suddenly profuse and the weak anæmic patient was rapidly prostrated. On attempting to deliver the placenta, I found true hour-glass contraction, the double placenta tightly compressed in the upper segment and the hemorrhage absolutely appalling. While I proceeded to dilate the constriction, Dr. Briggs, at my request, hastened to the nearest drug-store and obtained two sponges of the size of an ordinary lemon, and, a bottle of Sol. Ferri per Sulph. On his return the patient was unconscious and pulseless, and the hemorrhage still continued though placenta was removed. Hastily attaching a piece of tape to a sponge, I saturated it with diluted Sol. Ferri per Sulph. and carried it to the fundus of the womb. The hemorrhage ceased instantly, the patient to all appearance dead, slowly rallied and made a good recovery. Four hours later, I withdrew the sponge, a hard stony mass, and, the womb contracted well. I can find no record of a similar proceeding, but it seems to me to be preferable to the mere injection of astringents. The Solut. Fer. per Sulph. coagulated the blood and the sponge formed a tampon upon which the womb could and did contract.

In the treatment of abortions and premature deliveries, the principal difficulty lies in the safe management of hemorrhages. I am not a convert to the specific effect of ergot in such cases. I believe that in these, as in most hemorrhages, we need pressure upon the bleeding vessels. Mere styptic effects are not to be trusted.

The Tampon is a good illustration of our philosophy in this matter, but the tampon will often partially or wholly fail. There is danger in forcing loose fibrous or other material into the cavity of the womb, not simply by the force used, but also from fragments retained producing uterine irritation, leucorrhœal discharges, etc. In such cases when unable to reach and remove the placental substance and membranes, I am accustomed to pass a sponge tent

by the speculum, and then tampon in the ordinary way, upon it. Generally, I find, upon withdrawing the tampon, the dilated sponge tent follows, dragging with it the rudimentary fragment of the placenta. The hemorrhage is also very much less than when the ordinary tampon only is used.

In accidental hemorrhage from supposed partial detachment of the placenta at or near term, I am inclined to favor the induction of labor and of artificial delivery as soon as dilation of the cervix will permit. The well known diagnostic distinction between it and placenta prævia should be borne in mind, viz: in partial non-cervical detachment, hemorrhage is most marked between pains; in placenta prævia at time of pain. The diagnosis is thus made easy. So soon as forceps can be applied the delivery should be accomplished. Delays are infinitely dangerous in such cases. I have usually ruptured the membranes early so as to obtain the aid of the foetus as a tampon, and I usually also apply a broad bandage firmly over the abdomen, interposing a liberal layer of cotton batting to equalize pressure. I think if we have any reasonable theory in such cases it must be that of compression; the grand fundamental idea in all cases where applicable. Turning may be useful but its risks to the mother should be considered.

In the treatment of certain forms of hemorrhage, particularly such as occur at or near the so called "Change of life," I place great confidence in carbolized sponge tents introduced within the cavity of the uterus. I have never seen ill effects and have frequently controlled, by a single tent, hemorrhages which had resisted the ordinary tampon and various astringents. I introduce the tent through the speculum, well up to the fundus, and tampon over it in the usual way. A recent writer reports that he frequently removes small polypi by this means.

Accidental hemorrhage may also occur from ulceration of the os uteri or cervical canal. These I treat by applications of Cupri Sulph. in form of pencils, touching not only the bleeding ulcers, but also the cervical canal. Sulph. Copper is also very useful in simple abrasion or congestion of the cervix.

Polypi are removable by traction, evulsion and the ligature. A

case occurring in my own practice illustrates the necessity of careful scrutiny into causes of accidental hemorrhage.

On making an obstetrical engagement I was informed that the lady had lost her child at a previous labor and endangered her own life by hemorrhage, and special care was desired from this misfortune. Summoned to attendance on the labor, I found that dangerous hemorrhage had already occurred. The child was soon born, exceedingly exsanguine, and lived but twelve hours. There was good contraction of the womb and I used all required care, remaining four hours with the patient with no recurrence of hemorrhage. An hour later, I was called to find my patient almost pulseless from flooding. Examination showed the os open and dilatable and I passed with little effort my fingers within it, when they came in contact with a pendulous body which I recognized as a polypus. It was the size of a small peach, and fortunately had a slender pedicle. I removed it by torsion without difficulty. There was no further hemorrhage, and two confinements since have been without unusual hemorrhage, and safe to both mother and children.

The subject of accidental hemorrhage is but slightly considered in the remarks I have made, but longer trespass upon your indulgence would be tedious, and special points can be brought up by discussion. I have offered personal experience, a course I commend particularly to all whose experience has been considerable, and as the only one tending to the accumulation of Medical facts. There is value in carefully prepared statistics and generalizations, but infinitely more in the presentation of special cases and carefully observed phenomena.

It is not the splendid operation only, but the modest success that practically aids in our daily work.

This paper was prepared for our last meeting but I was unavoidably absent. Since that date I have treated a case of epistaxis in a lad of ten years, a son of Mr. Flynn, Cor. Scott and Red Jacket streets. By repeated bleedings the boy was exceedingly exsanguine. A tent was inserted in the right nostril and left for nearly three days. No hemorrhage. On withdrawal a few drops of blood passed, but the lad has had no return in the last three weeks.

Post partum hemorrhage, though occasionally accidental, is usually avoidable. Position, and more particularly, *deference* to nature's mode of placental expulsion would largely diminish the dangers encountered. The reprehensible practice of delivering the Placenta by traction upon the cord cannot be too severely condemned. I have for years practiced what is now known as Crede's method, and always bring the placenta into the vagina by external manipulation; traction upon the cord is then useful and justifiable. The rude separation of the placenta from the uncontracted uterine wall is one of the most frequent causes of undue and dangerous flooding.

I am compelled to close my remarks without reference to many forms of hemorrhage, properly called accidental, but as so far as I know my practice accords with that of *others*, it is somewhat foreign to my purpose to review them. I have aimed to offer you my personal experience which is in some respects unique. The use of sponge tents for epistaxis, dating back no less than eighteen years is original with myself so far as I can learn. Two English Physicians in '74, I think, allude to their use; but no work, unless it be very recent, makes any allusion to them for this purpose. I can recommend them as truly specific in such cases. Their size should vary as also their length. They should always pass well to the posterior nares, and be left from forty-eight to seventy-two hours in position; contrary to supposition the withdrawal is quite painless. The error, if any, will be in using tents of too great diameter. I have never used one of more than three lines average diameter, for children two lines is ample. The important consideration is their length. This should be two and one-half to three inches for an adult, and two inches for a child from six to ten years. The tent should be slightly curved and passed well back by the middle meatus of the nostril from which the blood is supposed to flow. No part of the tent should project anteriorly from the nostril, and the usual traction loop should be shortened so as to be out of way. This will lessen danger of interference by the patient. The removal should be accomplished by rotation and traction. I have never noticed displacement of the Vomer or in-

jury to the turbinated bones; a slight loss of blood is to be expected, but it soon ceases.

With thanks for your kind attention I invite your friendly criticism.

Dr. W. W. MINER was afraid that sponge tents might produce injury to the turbinated bones, when used to pack the nares.

Dr. ROCHESTER believed that we had very efficient means of controlling many such hemorrhage in the hypodermic use of ergot. He was free to say however, that a great objection to its employment was its tendency to produce local abscesses, or even sloughs. On one occasion he was obliged to treat an arm thus affected for nearly six months, and had seen the same accidents occur in the practice of other physicians. When administered internally, he considered ergot of little use.

Dr. CROXYN thought that the essayist had, to a certain extent, confused the classification, by regarding accidental and unavoidable hemorrhage as the same. The use of tents of dry sponge in epistaxis was as old he believed as Bellocq's canula. In general, however he agreed with the writer and would thank him for presenting the subject so acceptably. One other method he often used for arresting epistaxis, which consisted simply in folding the hands above the head. A rational explanation of the manner in which this produced the desired effect, had been offered some years before.

As to giving ergot by the stomach he considered it useless, but hypodermically it is of great value in arresting many of the accidental hemorrhages. He thought the abscesses were often due to the occasional introduction of the needle into the muscular tissue.

Dr. HARTWIG had seen such results as those mentioned by Dr. Rochester, and considered them to be due to the idiosyncrasy of the patient. He could hardly conceive how an intelligent physician could introduce the needle into muscular tissue.

Dr. BARTLETT replied to these criticisms by saying that the use of tents of compressed sponge was original with him as far as he was aware, and did not remember having seen it employed by others. The means proposed were only such as he would use when prompt

action was demanded, and when resort to medication of any kind would necessitate some delay.

Under the head of Voluntary Communications, a number of interesting pathological specimens were presented—as follows.

Dr. J. F. MINER presented specimens of Sub-Mucous Uterine fibroids recently removed. They gave rise to menorrhagia or perhaps metrorrhagia,—continuous hemorrhage greatly aggravated at the menstrual period. Perhaps Dr. Bartlett would include it under the head of accidental hemorrhage, though it seemed to be upon a well considered and uniform plan of nature in such cases.

He also presented a Capsular Cataract, recently extracted from the eye of a lady, who twenty years since had been operated upon by the then common method of *depression*. It was a rare and suggestive form of capsular cataract. Capsular cataract did not often assume so compact form, but was usually observed back of the pupil as a very thin gauze, so thin as only to partially obstruct vision and not always detected, except by observers knowing what they were trying to discover. These ganze-like capsular cataracts may appear after operation for cataract by all the different methods, and are not confined to operations by depression, or with the view of obtaining absorption or solution of the lens mass. This specimen was thick and firm, circular in outline of just sufficient size to close or obstruct the pupil, and was attached quite firmly to the posterior margin of the pupil, preventing all motion, and completely obstructing all vision. It was extracted after separating its attachments by the usual method of extraction of cataracts, and the results had proved satisfactory. He also exhibited some specimens of glandular tumors selected as representative ones from forty-three similar growths, removed from the neck of a little girl 11 years old. Combined, the tumor filled the neck and supra-clavicular region to the point of the shoulder, and consisted of an aggregation of Glandular tumors. He did not regard them as enlarged or distended glands, but as a distinct form of new growth. They were surrounded by a cyst, and thus more or less distinctly separated from each other. Some of them rested behind and beneath the clavicle so as to rest upon the pleura, as near as could

be judged by appearances and careful examination. The operation was followed by complete recovery, no unfavorable symptoms appearing at any time, reasonably attributable to it.

On account of the lateness of the hour he would defer description of a tumor recently removed from the carotid region, and requiring ligature of common carotid, and both internal and external carotid, before hemorrhage could be arrested. This case was remarkable in many respects, and required more time to describe it, and he would not longer trespass upon the time of the association.

Dr. HARTWIG presented a case for diagnosis, the patient, a young man, having a cystic tumor situated at the upper and inner angle of the right orbit.

After the usual routine of business, the meeting adjourned.

L. HOWE, Sec'y, pro tem.

—:O:—

ART. III.—Surgical Cases in the private practice of Prof. J. F. MINER, M. D. Reported by Charles A. Wall, B. S.

CASE V. Mrs. J. was married when over thirty, and had one child, since which time she has been an invalid. Many and varied had been the opinions given to her by the various physicians whom she consulted, until at length, upon a close examination by the aid of a speculum, a laceration of the cervix was discovered, and on July 29th, 1877, after she was brought under the influence of ether, the uterus was drawn down by long tenaculum forceps, and the sides of the laceration pared. The uterus was then allowed to ascend to its normal position. The parts healed readily, all discharge soon ceased and she expressed herself as feeling better than for years. This lesion of the os uteri was formerly overlooked, and only of late has the attention of the profession been called to their occasional occurrence, even now they are ignored by many. In most cases careful examination of the neck of the uterus is absolutely necessary to a correct diagnosis, for the injury is seemingly so small and incapable of causing so much trouble, but when met with it will explain many blind symptoms otherwise obscure. Relaxing the tension upon

the organ, it was observed that there was a strong tendency to return to normal condition, the pared surfaces closing upon each other so perfectly that no sutures appeared necessary, and none were used.

CASE VI. Mrs. S., about forty years of age, had vesico-vaginal fistula caused by a long tedious labor with application of forceps. To the latter, as is usual in such cases, she attributed her condition. The fistula was midway between the external parts and the os uteri, and easily reached and would admit a small catheter. May 30, 1878, after insensibility had been induced by the use of ether the fistula was pared, laterally removing all cicatricial tissue, and the edges approximated by five silver sutures. The operation was successful, and in two weeks she was dismissed, perfectly recovered.

CASE VII. Mrs. C., American, married, has never born children, and for over a year past has complained of uterine trouble. Upon examination an unpromising condition was found. The os was softened, dilated and unhealthy, and frequent and profuse hemorrhage occurred. The os having been widely dilated by large sponge tents. July, 1878, she was brought under the influence of an anæsthetic, and two fibroid tumors removed. They were easily enucleated, the uterus having been pulled down to view. They were situated in the lower portion of the cervix, which was much enlarged and granular; the uterus was normal in size and position. The removal of the local lesion caused all other symptoms to subside, and she soon recovered her wonted health. The case is unusual in that, the tumors, although they were each about the size of walnuts, did not cause the usual sympathetic enlargement of the uterus, disturbances of the nervous system, or the lumbar pains, so often complained of in such conditions. The case presented but one symptom of the presence of sub-mucous uterine fibroid.

CASE VIII. Mrs. Emma F., American, aged 32, had noticed four years ago a slight tumor in the left inguinal region, upon severe pressure. It was only within a year that it had enlarged enough to become troublesome, and in the last three months it had doubled in size, until she was immense; the antero-posterior

diameter just below the umbilicus, being over two feet, and the circumference nearly five; when she sat in a chair the abdomen extended beyond the knees, and was supported on the thighs. Her weight was one hundred and fifty-two; her height being about five feet and two inches; the bones of her arms and legs seemed to be covered with integument as thin as paper, every elevation or depression distinctly marked. So emaciated was she, that little hope of any surgical assistance could be offered; however she strongly insisted, willing to try any chance that an operation offered, so that it was at last granted, October 9th, 1877, in the presence of Drs. Bailey, Dayton, Brush and W. W. Miner, and three medical students. The preliminary incision and evacuation of the contents of the cyst were done as commonly, but the tumor was found to be very large, having an extremely short pedicle and closely adherent to nearly every organ in the abdomen. It was impossible to remove the tumor entire, and so it was carefully enucleated from its attachment, and in those places where this could not be done, a portion of the cyst was cut out, leaving it as a portion of living tissue, receiving its blood supply from its attachments. No large vessels were met with, but some of the smaller could be traced 12 or 15 inches before they entered the cyst walls. These were peeled off and allowed to fall into the abdomen and not trimmed from fear of hemorrhage, which was consequently the minimum. The right ovary was also diseased and similarly removed. During the operation the patient's pulse was weak, and she did not rally well; but after brandy had been given she brightened up and appeared cheerful. 4, P. M., six hours after operation, pulse 100; temperature normal, intellect clear, and although she did not exhibit any other symptoms, died from exhaustion upon the sixth day. There were no indications of peritonitis, nor of pyemia, but she had not strength to sustain the depression attending the removal of so large a tumor, whose weight was over ninety-five pounds. The result was as anticipated, but she was gratified by the trial of the only means having the possibility of a favorable issue. Attention is called to the foregoing case, that where large adhesions which cannot be separated without danger of hemorrhage are met with, the sac may be cut

around its attachments, and the portion remaining will be no cause of danger. It is living tissue, not a foreign body, and can do no possible harm. There is less danger in allowing even large pieces of the sac to remain, than in forcing it from its strong and firm attachment.

—:o:—

Miscellaneous.

Some Observations on the Deep Injection of Morphia.

By GEORGE E. JONES, M. D. Read before the Cincinnati Academy of Medicine, July 15, 1878.

In June, 1876, I was called to see Mrs. B., a German woman, aged 37, 5 feet 6 inches in height and weighing 135 lbs. She was the mother of four healthy children.

She stated that she had been under medical treatment several times for "pains in the back, paralysis of the lower limbs and a sickening feeling around the stomach." The above symptoms had been relieved by her former medical attendant. In answer to my questions she described the pain in the lumbar region as one of great intensity, at times extending to her feet; occasionally her limbs would become paralyzed and remain so for two or three hours. She was unable to retain her food for several days at a time, and often two weeks would pass without any action of the bowels, producing, as a general rule, no discomfort.

At the pyloric end of the duodenum there was a tumor about the size of an orange, well defined, indurated and quite painful on pressure. Her urine was small in quantity, of high color with a disagreeable odor. Heat and nitric acid threw down considerable albumen. The microscopic field exhibited tube-casts, blood corpuscles and epithelium in abundance, with some granular matter. This trouble in the course of a month subsided.

The bowels were rather difficult to act upon. The first stool after a brisk cathartic was heavily loaded with pus and blood; her relief now was considerable; of necessity I repeated the cathartic in milder form, which gave same result, but not in quantity; she was now much easier.

About ten days after, a messenger came in rather an excited manner saying that the patient was dying. In a few moments I was at her bedside, and found her suffering most excruciating pain in the lumbar region, passing in waves to her feet, which were quite rapid. Wishing to retain the little control of the stomach, I gave her sulphate of morphia, half a grain, hypoder-

mically. She became easy and slept about three hours. Three days later, under similar circumstances, I repeated the above with the same result.

As the case was one of peculiar interest, I called in a number of my medical friends to see her. Among these were Drs. Carson, Conner, Walton, Cleveland, Drury, Sittel, Underhill and Taylor. Neither of them was willing to express any positive opinion. Drs. Conner and Sittel independently of each other advised that a quantity of water be thrown into the rectum. A tin funnel, large enough to hold a gallon, was made, filled, and from a height of some five feet the water was allowed to flow through a tube into the bowel. She held it several minutes, when it passed off, carrying with it a considerable amount of hard fecal matter that seemed as if it had been packed in the intestines for months; this movement gave her very great relief. At the end of a week I repeated this with good effect. There was no tenderness over the abdomen only in the region of the tumor mentioned.

The tumor began to diminish, but the pains in the lumbar region increased in frequency and intensity, and I had of necessity to increase the amount of morphia, as it was the only drug that would give her any relief, until in the course of a few weeks I reached the amount of 30 grains daily, 15 grains in the morning and 15 grains in the evening; this was continued 21 consecutive days; then I began gradually to lessen the amount to 15 grains daily, finally to one grain a day, giving in twenty months, hypodermically, nearly nine ounces of sulphate of morphia, which required over 2,300 punctures of the needle; these injections were made in the abdomen and outer face of the thighs.

Did the needle enter an abdominal vein? Several times. The first time I became somewhat alarmed, the patient at once threw up her arms, complained of suffocation, giddiness, excessive fatigue, a severe tingling sensation following the course of the circulation. The countenance was at first livid, then flushed; the eyes became unusually brilliant; slight muscular twitchings, profuse sweating with cold extremities, and in a few moments complete relaxation was followed by deep sleep which lasted only four hours, when she awakened, feeling, as she expressed it, "ever so much better."

The same accident occurred three times, the symptoms much milder with the exception of a burning sensation of both eyelids of either eye and both lips, which at one time became painfully intense. The above symptoms were produced by an injection of five grains of sulph. morphia into an abdominal vein.

Being unable to see her for a day or two, I requested my friend, Dr. Geo. E. Walton, who had watched the case with a good deal of interest, to call and give her an injection of two grains, when she put both hands to her head and gave a cry of excruciating agony, a sharp pain darted through her head which lasted ten or

fifteen minutes; also complained of an intense itching of nose and lips, finally passing off, leaving no deleterious effects. The same accident occurred to myself, only in a less degree. These injections were also made in the abdomen.

Did the hypodermic injections cause the productions of any abscesses? Never met with any trouble of the kind, which I think was owing to the fact that *I made deep injections with warm concentrated solutions of morphia*, that were freshly prepared every other day. Not only in this case, but in all others, am I in the habit of using the injecting fluid warm, but I am also careful to make the injections deep. Under the circumstances, as I have met with success, I think the above is the proper method.

Are there any ill effects produced by continued use of morphia when hypodermically administered? In conversation with Prof. Bartholow, a few days past, I found him fully able from his great experience to answer this question: "If morphia be gradually diminished in a careful manner very little trouble, if any, need be anticipated; if withdrawn suddenly grave symptoms, even collapse may follow." My own experience, as far as it goes, agrees with the above. I have never met with any ill effect in any case when I have continued the use of morphia hypodermically for any length of time and gradually withdrawing it; especially so in the case mentioned in this paper, when such a quantity had been used.

Neither have I met with the same amount of nausea of the stomach, or trouble with the kidneys as when given internally; at the same time medicine and food can be given with a fair assurance that they will not be interfered with. In conclusion, I would offer the following aphorisms:

Injections directly under the skin, are, as a general rule, painful, and are liable to produce abscess.

Deep injections are not painful and are not so liable to produce abscess.

The injecting fluid must be at least the same temperature as that of the body.

Morphine hypodermically is always more positive in its action, and more equally distributed throughout the system, than when taken in the stomach.

One-eighth of a grain of morphia hypodermically, is, as a general rule, equal to one-half to three-quarters of a grain internally.

—:O:—

The Antiseptic Dressing of Prof. Lister.

A large audience assembled to hear the distinguished English professor read a paper on his antiseptic dressing. It occupied more than an hour and was attentively listened to.

In all wounds, said Lister, there are two things to combat, 1st,

the *ordinary inflammation*. 2d, the *suppuration caused by putrefaction*. A recent wound does not suppurate for twenty-four hours. Proud flesh or granulations always precede suppuration; this is a point of great moment. In certain cases of grafting practice by the method of Reverdi, we see a union by the first intention though granulations are present. This proves that the granulations in wounds have no tendency to form pus. As soon as a granulating surface is relieved from all causes of irritation it ceases to form pus. A recent wound dressed with phenic oil excites a flow of pus more or less abundant. But if between the antiseptic liquid and the wound we place an isolating substance which protects the wound against the irritation of the antiseptic, usually there is no suppuration, and no granulations are developed. At the end of some weeks a cicatrice is formed without a purulent flow. The protector or protective substance which he employs as all know is a species of silk gauze varnished with copal. It is not as yet sufficiently perfect to absolutely prevent suppuration of the granulating surface; nevertheless it greatly diminishes it. There is often danger he said in using too large a piece of the protector. The isolating layer excludes the irritant action of the antiseptic; but it is necessary that this extend beyond the gauze on all sides.

Water dissolves at the most 1-15 of its volume of phenic acid; this solution is very caustic to the tongue. A solution of phenic oil of 1-10 is less irritant than an aqueous solution of 1-20. Finally, phenic acid combined with resin in the proportion of 1 to 5 is still better tolerated.

For a permanent dressing we should employ a substance which has a great affinity for phenic acid. Now a resin has the advantage of not being soluble in water and does not commingle with the drainage which comes from wounds. The object of the "*Macintosh*" or impermeable tissue placed between the two last folds of the gauze is to completely prevent the drainage from soaking through the gauze, and to conduct it to the margins. Phenic is not the only acid used by Lister. Boric acid, which is milder, produces good results for superficial wounds and old ulcers; but in dressing with borac acid the protection has the disadvantage of removing the new epidermis which forms on the surface. A solution of zinc chloride of 1-12 he finds very advantageous in the mouth. A single application of it prevents putrefaction on the surface of the wound however numerous the causes of suppuration may be, as after extirpation of the tongue.

M. Després replied briefly to Prof. Lister and said that air does not exercise an evil influence on wounds. The studies of M. Bouisson on ventilation had very clearly shown this. As to wounds of the mouth, if let alone they nearly always healed without complications. He complained that Lister did not make sufficient account of immovability in wounds, and he (M. Després)

does not admit either that the opening of a congestive abscess even with antiseptic dressing constitutes a good practice.

Prof. Lister replied that the wounds of the mouth healed without treatment because the saliva constitutes a natural antiseptic and does not irritate the wound; but the healing is much more rapid after cauterization with the solution of zinc. On the other hand it is quite certain that an abscess by congestion often produces fever and a grave general condition. The opening of the abscess with antiseptic dressing is followed by great alleviation. He does not though pretend to cure every patient attacked with ossifluent abscess.—*Progrese Medicales*.—*Cincinnati Lancet*.

—:o:—

The Effect of Posture on the Peripheral Circulation.

On the 18th of June last Mr. Lister read a paper on this subject before the Académie de Médecine. According to the report in "L'Union Médicale," he stated that he had been led to attend specially to the subject when studying the resection of the wrist for caries. In order to prevent the hæmorrhage he applied Petit's tourniquet upon the arm, after having raised the limb for some minutes. By this means the limb was rendered almost exsanguine. Later, in 1873, it occurred to him that this result was not the simple mechanical effect of gravitation, but was a reflex phenomenon caused by the emptying of the veins producing contraction of the muscular fibres of the arteries. In surgery this method of raising a limb, and then applying at its root a tourniquet, has all the advantages of the system of Esmarch without its inconveniences, such as the danger of forcing septic matters into the interstices of healthy tissues. In order to observe the effect better, Mr. Lister performed the following experiment on a horse. By means of cords and pulleys attached to the legs of a horse, he varied the position of one hind leg, at one time elevating it while the animal was on its back, at another time keeping the leg horizontal while the horse was on its side, at another time allowing it to stand upright with the leg downwards. The metacarpal artery having been exposed, it was seen that when the leg was raised the artery did not pulsate, and that the wound, being cleared of blood, resembled one made after death. By means of a gauge the diameter of the artery was ascertained. When the leg was raised the diameter of the vessel scarcely exceeded that of the same artery divided and emptied, while in the horizontal position, and especially while the limb was dependent, the enlargement of the vessel was considerable. By calculating the internal area from the external diameter, it was estimated that on changing the position from an elevated to a horizontal position, the calibre of the vessel

was increased threefold, and that it became increased sixfold when the limb hung down.

Mr. Lister demonstrated the effect of this method on the arm of one of the servants of the Academy, and showed that if a limb was raised and a tourniquet applied it remained pale and bloodless, even when it was allowed to hang down, and on raising the limb again and removing the pressure, the color rapidly returned to it, in spite of its position, which was the same as that in which it had become pale and exsanguine before the application of the tourniquet. He explained this result by supposing that after the tissues of a limb have been deprived for a certain time of all circulation, there is, so to speak, a need for the circulation, and that this need acts as a stimulus, and determines a relaxation of the arteries by acting on the vaso-motor system just as warmth does. This stimulus of need of circulation, which causes the relaxation of the arteries, becomes stronger than the stimulus of relaxation of the veins excited by gravitation, which under other circumstances would have caused their contraction. In consequence, the reaction is strong in proportion to the duration of the constriction.

Another experiment consisted in exciting the circulation by a short run, then raising the arm for a few minutes, and then lowering it. The member became reddened and congested just as after the application of cold. As evidence that these phenomena depend on a reflex action, Mr. Lister pointed out that if their cause were purely mechanical and physical, the lower part of the artery of a raised limb would have increased in size, since it would have been overfilled; but the actual state is the reverse. The femoral artery of the leg of a calf was exposed close to the abdomen. After the contraction caused by the irritation of the operation had ceased, he measured the external diameter of the vessel in different positions of the animal, and the results accorded exactly with his previous conclusions.

Finally, Mr. Lister pointed out the application of the theory to several phenomena, such as the good effects of the elevation of parts the seat of inflammation, and the treatment of epistaxis by elevation of the arm. Raising the arm produced, according to him, a reflex contraction of the arteries of the upper limbs, and, consequently, a sympathetic contraction of the facial arteries, leading to the cessation of the hæmorrhage.—*Lancet*.

:O:

The Diarrhea of Children and its Treatment.

After a rapid exposition of the causes and symptoms of infantile diarrhea, M. Blache insists upon the treatment proportioning the medication to the degree of intensity of the disease. As to

the question of diet, he recommends regularity of the meals, varying in number according to the age and energy of the child. He insists upon redoubling the vigilance at the time of evolution of the teeth, and especially at the epoch of weaning; the importance of continuing the use of milk in the alimentation of children, and of only abandoning it in persistent diarrhea after having tried the employment of the various kinds of milk, (cow's, goat's and ass's). As a preventive of intestine troubles, M. Blache advises the wearing of a flannel binder, which has the double advantage of protecting the children against chills, and of supporting the belly and preventing that tendency to swelling which occurs on the least intestine trouble. Whatever be the nature of the diarrhea, its origin, its intensity, or the time elapsed since its inception, the treatment which the author proposes, modified according to the cases, has constantly been successful in his hands.

1st. Diminution of the nourishment; appropriate injections repeated as required; and the application of poultices to the belly.

2d. Administer each morning, for three, four or five days in succession, a small teaspoonful of a mixture of *equal parts of castor oil and syrup of acacia*, simply emulsionized by shaking the bottle at the time of giving the medicine.

In order that this medication may produce a curative effect it is necessary to give the mixture in very small doses, and to repeat its employment for several days in succession. Three or four days running is generally sufficient to modify the nature of the stools and to diminish the number. If after two days' treatment the diarrhea is moderated without disappearing it should be suspended for a day or two, and then the same dose should be resumed, but after a days' interval. It is evident that in saying the median dose of the purgative mixture is a teaspoonful it is understood that the dose must be proportioned according as we may have to do with a child of six weeks or one of eighteen months. To be more precise as to the castor oil, let us say that a gram suffices before six months and 2 or 3 grams up to two years. In cases of an abundant and liquid discharge, repeated twelve or fifteen times, or even more, in twenty-four hours, M. Blache doubles, or even triples the dose of the syrup, and adds to it Sydenham's laudanum (vinum opii) in small quantity, (1 to 3 drops at most in the twenty-four hours, according to the age.) In benign diarrhea the purgative mixture is useless, and the use of chamomile injections for a day or two suffice to entirely arrest the laxity. When to the diarrhea are added manifest signs of gastric derangement, M. Blache does not hesitate in the beginning to administer an ipecac. emetic, and when to a burning fever are joined nervous symptoms, giving rise to a fear of convulsions, he gives calomel in fractional doses before the castor oil—*Jour. de Therap. Can. Jour. Med. Science.—Toledo Med. Journal.*

A New, Cheap and Self-generating Disinfectant.

Under this title, Dr. John Day, of Geelong, Australia, recommends for use in civil and military hospitals, and also for the purpose of destroying the poison-germs of infectious diseases, a disinfectant composed of one part of rectified oil of turpentine and seven parts of benzine, with the addition of five drops of oil of verbena to each ounce. Its purifying and disinfecting properties are due to the power presumed to be possessed by each of its ingredients, of absorbing atmospheric oxygen, and converting it into either peroxide of hydrogen, or ozone. Articles of clothing, furniture, wall-paper, carpeting, books, newspapers, letters, etc., may be perfectly saturated with it without receiving the slightest injury, and when it has been once freely applied to any rough or porous surface, its action will be persistent for an almost indefinite period. This may, at any time, be readily shown by pouring a few drops of a solution of iodide of potassium over the material which has been disinfected, when the peroxide of hydrogen, which is being continually generated within it, will quickly liberate the iodine from its combination with the potassium, and give rise to dark-brown stains. It may be applied with a brush or a sponge, or, if more convenient, as is the case with certain articles, such as books, newspapers and letters, it may be simply poured over them until they are well soaked; they may then be allowed to dry, either in a warm room or in the open air.—*New Remedies.*

:o:

Smartweed.

The smartweed, "*Polygonum Punctatum*," *P. hydropiperoides*, is a common weed, well known as a domestic remedy; but its true place in therapeutics is but little known or valued. In dysentery, watery, and mucous diarrhœa, few agents have proven of more value. The dry plant yields about eighteen per cent. of tannin. What its other proximal principles are I do not know. I prepare a saturated tincture. As an anti-pyretic in typhomalarial and our bilious remittent fevers, it has few equals. With it the temperature may, in a few hours, be brought down from 102°, or even 104°, to 98°, and at the same time it is valuable as an anti-periodic. It is an active stimulant, and combined with some of the salts of the cinchona, one-half the ordinary dose of the latter will have a better effect than a full dose uncombined.

When taking *polygonum*, the patient feels it to be a stimulant, and will say, "that medicine warms me all over, I feel it to the tips of my fingers." In dysentery, when there is tormina and tenesmus, I give from m. xx to ʒi in mucilaginous drinks every

hour or two, as occasion demands; and when the discharges are so frequent as to prostrate and cause loss of sleep, an enema of polygon., $\mathfrak{z}\text{i}$ in an ounce of cold water, after each dejection, will calm and still the bowels in a short time. In hæmorrhage of the bowels, no drug within my knowledge given by the mouth and as enema will so soon check it. I think it has no, or but little, influence in reducing the rates of the pulse. I use it in all forms of bowel complaints, particularly in the diarrhœa of typhoid fevers. It acts as a diaphoretic and mild diuretic.

For the watery diarrhœa for children I use—

R. Tinct. polygon., $\mathfrak{z}\text{i}$;
 Tr. rhæi comp.;
 Tinct. zinziber, aa $\mathfrak{z}\text{iv}$;
 Tr. camphor, $\mathfrak{z}\text{ij}$;
 Sys. annise, $\mathfrak{z}\text{vi}$;
 Sodæ bicarb., $\mathfrak{z}\text{i}$.

S. From half to a teaspoonful, according to good judgment. This formula having no opium in it is a safe domestic remedy.

Some of the fluid extracts are of little value. I think from want of care in gathering the true plant. There is a variety of the species known as heartsease; the leaf is larger than the true, marked with a dark blotch, which the true has not. The flower of the true is pink, that of the false white. The plant should be gathered when in bloom, and dried quickly in the house. Keep in tight paper bags, otherwise it soon loses its virtues.—*Med. Bi-Weekly*.

—————o:—————

The Yellow Fever Plague.

The appearance of yellow fever in a malignant form at New Orleans and other points in the Gulf states, has naturally caused much anxiety on the part of the sanitary and health officers of other localities for protection from it. As this is a portable disease, not only sea-board but also interior cities having water and railroad communications with that section are vitally interested.

The history of the origin of this outbreak whether from recent importation or developed from an old fomites hidden away, which had preserved its vitality in some obscure place where the disease had once prevailed, and again revived its latent poison under favorable condition, or originating *de novo*, we shall not discuss. We will here quote a few sentences relative to the natural home of yellow fever, from a paper by Dr. J. M. Toner, entitled "The Distribution and Natural History of Yellow Fever, as It Has Appeared at Different Times in the United States," read before the American Public Health Association in the city of New York in the fall of 1874, and published in the report of the Surgeon Gen-

eral of the marine hospital service of the United States for that year, with a map showing the localities in the United States where the disease has appeared from 1668-1874: "The conceded home of yellow fever is in the West Indies and the Bahamas, with a portion of the adjacent continents of North and South America. A square formed by the 45th and 100th degrees of longitude, and the 35th north and the 5th south latitude, will include the favorite region of this disease. Although originating within the square named, history shows that it may prevail on the sea-coast in any locality within the tropics, north and south of the equator, where malarial fevers prevail, and the daily average of the thermometer is over 75 or 80 degrees, with a high dew-point for weeks or months together." There are, no doubt, other conditions than those of continued high temperature with moisture of a purely sanitary and preventative character, which favor the existence and propagation of this great scourge of the tropics. It has been observed that once the disease becomes epidemic it can exist and preserve its grave form at a much lower temperature than seems to be required for its origin. Yellow fever of a malignant type has appeared very early this season in the southern part of the United States, and is spreading with unexampled rapidity and mortality to the cities in the gulf states. It is also advancing steadily up the Mississippi valley into the heart of the country. In the past it has appeared in most of the Atlantic maritime and coast cities as far north as Boston, and indeed has been chronicled at Quebec and Halifax. The history of the geographical limit of the disease in an epidemic form shows its northern boundary to be in the region of Norfolk, Va. This disease prevails in warm, and in cities rather than in rural places. It is sometimes arrested in its course or modified in its severity by storms, heavy and continued rains. The polar waves or "northers" that occasionally blow from the Arctic region down across Texas have been known to almost completely arrest its severity and spread. We cannot now reasonably expect the complete arrest of this epidemic until the advent of frost, which always effectually puts an end to it for the season.

While it is true that yellow fever has visited many of the seaport cities, it has, fortunately, never extended to the interior of our country, away from the towns and cities located along the great water courses to which it was carried. Dr. Drake many years ago observed that while the disease had appeared at almost every town on the Mississippi, as far up as Vicksburg, that Woodville, twelve miles from the river, was the most remote inland point it had reached. The changed condition of our country, in its development of railroads, with the growth of villages into towns, and towns into cities, have rendered it possible for this disease to be carried within a few hours or a day or two at most to any of our interior cities, and where it is probable such unsanitary conditions exists that it could propagate itself during the heated

term. Once the disease has become epidemic in a city the unacclimated have no security except by flight to healthy localities.

There are, perhaps no cities out of the Gulf states where the citizens could be said, in any sense, to be acclimated to yellow fever.

————:0:————

Wanga Plant and Voodooism.

Some months since, noticing a paragraph in a foreign exchange stating that a powerful narcotic plant, unknown to science, was largely used in Hayti as an ordeal poison, the editor of this journal wrote to the government at Washington, asking that inquiries be made. Secretary Evarts very courteously and promptly wrote to the minister at Hayti, requesting an investigation, and the result is so interesting that the letter is here published, with the omission of certain non-essential details.

No. 65.

LEGATION OF THE UNITED STATES,
PORT-AU-PRINCE, HAYTI, June 24, 1878.

HONORABLE WILLIAM M. EVARTS, Secretary of State, Washington,
U. S. A.

SIR,—Referring to your No. 12, of January 8 last, I have the honor to state that I have given the subject therein submitted, upon the letter of Professor Wood, due investigation.

The particular plant to which the name of "Wanga" is applied is not known by any one outside of the circle of the high functionaries,—the king, the queen, the papalois, and perhaps some of the more distinguished followers of the Voodoox. There can be no doubt that there is, among other things used by the king and queen, or priest and priestess as they are frequently called, at their initiations, and at other times, as occasion may require, a plant of great narcotic power; and that those who use it have the best knowledge of the character and power of its properties, and how to make application of it so as to accomplish the effects which are desired. The testimony borne in this behalf is abundant and reliable; and it comes to the enquirer in forms and methods both curious and interesting. The more intelligent among the common people furnish entertainment by the hour in telling strange things which they witness as the effect of the manipulation of the plant by the waung, the priest, or papalois. And a like testimony is borne by authors who treat of this subject. In his excellent book entitled "Description de la Partie Française de Saint-Domingue," Moreau, speaking of the Voodoox ceremony of initiation, as translated, says, "The King of the Voodoox makes a great circle with a substance which makes a black mark, and there places the one to be initiated, and puts in his hand a packet of herbs, horse-hair,

pieces of iron and other things as disgusting. Afterwards, striking him lightly upon the head with a little battledoor of wood, he (the king) begins singing an African song, which those in the circle repeat in chorus; when the new member sets himself to trembling and dancing; this is what is called 'monter Voudoux.'

But what the herbs are which the king uses, how they are compounded, what qualities they possess, whether they are the products of this country, and whether he uses more than one, are all matters of conjecture among the uninitiated.

The herb is used on other occasions as well as at initiations. Whenever miracles are to be wrought, the sick healed, the dead brought to life, or any display of power that is superhuman and calculated to strike the masses with awe, is to be made, the herb is used. It is often told with the most profound sincerity and faith, even by those who declare that they do not belong to the Voudoux, that the papalois, a subordinate official of the sect, or even one of them of a still lower official grade, who is moved by what is called the "Lois," can and does resurrect the dead. But the herb always, according to their stories, plays its part in connection with such performances.

The "Lois," as I judge from the statements and explanations of those with whom I have talked on the subject, is a sort of spiritual influence or power, which is sometimes directly bestowed, but more generally inherited. It comes to the child from the parent or grandparent, and when once in the family never forsakes it, but abides forever, descending from mother or father to son or daughter.

The followers of this faith in this country are very numerous, including all grades of social life. It is generally believed that the Emperor Soulouque was a member. He certainly did nothing, unlike his successor Geffrard, to prevent its power or its cannibalism. It is well known that the Voudoux are eaters of human flesh, and to secure it do not hesitate to take human life, especially that of small children. With such victims they profess to make sacrifices to their strange god. In connection with these, too, the sacred herb, like the drum and other instruments so constantly used by them, figures conspicuously.

There are several considerations for concluding that the herbs which are used by the Voudoux grow in Hayti.

There is a plant, the product of this country, growing in great abundance, within the reach of those who desire it, whose properties are well known, and which possesses remarkable narcotic power. This plant is often used here on account of its peculiarly narcotic properties, even by the ordinary Haytien not a member of the Voudoux, for medicinal purposes, as well as those that are lascivious and base.

In his work of rare merit, entitled "*Flore des Antilles*," Descourtiz in the third volume describes the *stramoine épineuse*, or

Datura, and states, in connection with its natural history, that people believe in San Domingo, as he is assured by Colonel Deveux, that the discovery of its somniferous properties is due to a negro, who used to put an old proprietor to sleep, to enable him to steal his bees.

He also tells the story of certain clever negresses who used the same plant to put the lover whom they did not prefer to sleep, while they stole to the embraces of him who was vanquisher.

The juice of the plant, as is well known, has been used not unfrequently to produce temporary blindness: and persons using it have been examined by the surgeons of the government and pronounced blind and unfit for military service, when, after its influence had passed away, the sight was restored, without the least deleterious effect having been produced upon the optic nerve.

Were one to visit the ordinary family of Hayti, and find himself, from fatigue or fear or anguish of mind, wakeful and restless, it is almost certain—if he let his condition be known—that he would be advised of the soporific effects of the *datura*, and leaves of the plant would be put under his pillow to make him sleep. Five leaves of this plant are said to be sufficient for ordinary cases, under such circumstances.

There are several varieties of this plant found in Hayti. Descomtilz mentions and describes three. In addition to the one already named, he gives the *stramoine harmenteuse* and the *stramoine cornic*, the three being described as toxic and bitter-narcotic. All three, in strange but natural combination, may be used by the king or papalois of the Voudoux. Or it may be the case that these are used in combination with other plants, the properties of which have not been made known to science. For I am advised that only six hundred of the two thousand varieties of plants in this country have been examined, classiffed, and their properties determined and defined. Upon this branch of the subject I have had several interviews with Dr. J. B. Delroux, who is altogether the most learned and scientific man of this republic. He informs me also that efforts will be made, though necessarily in a very imperfect way, through the chair of botany which has lately been established in connection with the medical college of this city, of which he is the president, to explore, to some extent, this field, which must be full of rich treasures for science.

But we may conclude that the *stramoine épineuse* is the main ingredient of the herbs used by the Voudoux, from the fact that it possesses the qualities, the properties, which work the result which the devotees of this strange religious fanaticism desire; and in this particular species of the plant these peculiar properties are more largely found than in either of the others. Descomtilz, in describing its properties, says:—

“Others mix them with tobacco. Three grains, pernicious to

man as it is said, have a property for fattening hogs by causing them to sleep a great deal."

In speaking of it in another connection, he says:—

"This plant, a native of America, is found in all the sandy fields of Europe, where it is perfectly naturalized. The magicians, or pretended sorcerers of the colonies, procured for their sick, in the use of this plant, that species of voluptuous enthusiasm which made them forget, during some instants, the afflictions which oppressed them."

But it must be recollected that it is in the tropics that this plant grows with its greatest vigor and develops its properties in full power. The same species of plant, known as the "Jamestown weed," was formerly found in the states; and in the early settlement of Ohio and other parts of the West it grew quite thriftily; but not as it does here. Its leaf, blossom and fruit, as well as limb and trunk, show that here its roots find the sweetest and most natural nourishment.

Everything connected with the Voudoux service, the serpent, the herbs, the horse-hair, the pieces of horn, as well as the drum, the song, and the circle, have thrown about them a solemn mystery and are held in their sacred uses and effects as profound secrets. Everything is done, the initiation-oath is given and taken, with this object.

All that is said, therefore, with regard to this subject, as already stated, is said upon conjecture. It may have truth in it; it may not.

With sentiments of high regard, I am, sir,

Your most obedient servant,

JOHN MERCER LANGSTON.

—:o:—

Lactopeptine.

In the summer diarrhoeas of children we have found *Lactopeptine* of the very highest value. It is probable that weakening of the digestive powers is a very important factor in the causation of Cholera Infantum. We have found *Lactopeptine* a most important help in restoring these cases, when they have passed through the worst stages of that disease, as well as in warding it off when its onset seemed almost inevitable.

In the exhausting Vomiting of Pregnancy, we have found it of very great value in enabling the patient to obtain some nourishment from the food ingested, even if it remained but a short time in the stomach. In the nausea and indigestion and cardialgia, which causes so much annoyance, even if no great danger, in the latter months of gestation, *Lactopeptine* has proved itself almost a specific.

The article used was manufactured by the New York Pharmacal Association.—*St. Louis Clinical Record*, July, 1878.

OPEN AIR TREATMENT.—The “open air” treatment of wounds is meeting with its advocates. It is said to be extensively in vogue in Russia where dressings are dispensed with and the air allowed immediate contact. It is claimed by the advocates of this plan that Lister’s treatment is useful only in that it renders innocuous the pernicious material of dressing, and that the plan of freedom from dressings and open contact with the air is followed by better results than any other.—*Mich. Med. News.*

————:0:————

To CONVERT grains or minims into centigrammes, multiply them by 6; to convert drachms into grammes, multiply them by 4; to convert ounces into grammes, multiply them by 32. For instance:

R	Quiniae Sulph.....	grs. xxx	1	80
	Acidi Sulphurici dil.....	℥ iss	6	00
	Ferri Sulphatis.....	℥ ss	2	00
	Mix. Aq. Fort.....	℥ iij	96	00

It will be well for our readers to familiarize themselves with this, for the time is coming, and even now is, where ignorance thereof will be culpable.—*Mich. Med. News.*

————:0:————

Editorial.

————

Are Physicians to be driven back to their old plan of furnishing their own Medicines.

Our attention is often called to the behavior of our druggists in the putting up the prescriptions of physicians, but we have rarely thought worth while to mention things we could complain of, to our readers. We have always refused to write upon prescription papers having the card of a druggist upon it, thus treating all druggists alike, expecting honest fair dealing from all, not upon the ground of their honesty, but solely upon the conviction that they would see fairness and honesty *their* best policy. We thought to do a very fair thing by them in writing upon blank forms and allowing families to choose their own druggists, but we are now convinced of our mistake, and see how it is the *duty* of the physician to choose the druggist for his patient. It is neither safe or quite honest to allow patients in many cases to go to the druggist nearest or most convenient.

Hereafter we propose to tell patients where *not* to go for medicines, if we do not feel it necessary to direct where their prescriptions will be filled satisfactorily, and we propose to give our readers the reason why we do this for the benefit of both physicians and druggists in Buffalo and vicinity.

Recently a patient of ours called, bringing with him a bottle of medicine to

find out if we thought it would be good for him. He said, I have always bought the pills you ordered at ——— drug store, but the last time I called Mr. Druggist said, "you have taken these pills a good while, they will get your system full of mercury, and I will give you something that will answer better in place of them," soon giving a bottle of Syrup Sarsaparilla, with a little Iod Potass, as near as we could judge.

The patient had primary and some secondary syphilitic symptoms still present, and Pil Hydrarg. v grs. at night, had been prescribed, and the necessity of continuing for a long time, carefully enjoined as the only safe method to pursue. The young rascal druggist had taken the whole case into his own hands, and it might be wicked to repeat what I said of him, and unnecessary to tell how earnestly I advised the unsuspecting patient to never visit again his quite elegant apartment in the city, unless he could give him a public whipping. I would not believe so infamous a story if he had not in hands the corroborative proof; but his whole statement showed that it could not be other than true. We have not yet given our readers the name of this ignorant unscrupulous scamp, but *next time we will* give the name in full.

In connection with other not quite so infamous cases, it shows us how our first duty to our patients, after advising them what medicines to take, is to tell them where to get it, or where *not to get it*, if we have any fears of being accused of interest in the trade. We have most worthy and reliable druggists, but they can not but suffer by having gigantic vagabonds in the same business, and called also druggists, but as a class we have great respect for their faithfulness, fidelity and undoubted trustworthiness. Such cases as the above must be made very rare, or the prescription business will be "closed up."

:O:

Items.

—Boston Medical and Surgical Journal for August 15th, announces the sudden death of Dr. GEORGE W. GAY, of that city, from Cardiac disease of long standing. He was a frequent contributor to Medical Literature, and was well known and highly respected in the profession and by all who knew him.

—At the Fourth Annual Meeting of the American Neurological Association, held in June in New York City, a prize of two hundred and fifty dollars offered by Wm. A. Hammond, M. D., was awarded to E. C. Spitzka, M. D., of New York for an essay on the Physiological Action of Strychnia on the Brain, Spinal Cord and Nerves. Dr. Hammond renews his prize this year, the subject and conditions, not yet being stated. At the same meeting, Dr. J. J. Putnam, of Boston, read a paper upon Observations on the Intra-Ocular Circulation, made by himself and Dr. O. F. Wadsworth. After experimenting

upon themselves with atropine, nitrite of amyl, pressure upon the carotids and jugular veins, and making tracings from the surface of the brain of a man who had received fractures of the skull, they arrived at the following conclusion as reported in the *Medical Record*: that mechanical causes did not readily, if at all, induce appreciable arterial congestion of the fundus oculi, and the degree of nervous fulness so produced was not such as to justify, if seen in an eye examined for the first time, the belief that it was pathological. They were therefore led to the doubt whether such condition as congestion of the retina, unassociated with inflammation of a greater or less degree, in which case the term congestion would be, properly speaking, a misnomer, was ever met with.

—MORTUARY.—The death of Carl Rokitsky is recently announced by telegram from Vienna. He was seventy-four years of age, born in Bohemia, was early connected with the Institute of Pathological Anatomy in Vienna, held various positions of honor, and in 1850 was made Rector of the University of Vienna. His excellent work upon Pathological Anatomy in four volumes was published in 1842, at which time he was said to have made upwards of thirty thousand post-mortem examinations. This work was republished by the Sydenham Society. He was chief of the Viennese school of Pathology.

—Henry A. Martin, M. D., of Boston Highlands, uses in varicose ulcers of the leg, an Esmarch bandage made of rubber sheeting. He recommends it also in diseases and injuries of joints, housemaid's knee and other affections. The bandage is secured to the limb by a bit of tape fastened at the end of the bandage, and girt about the extremity. —Professor W. H. Van Buren, M. D., of New York City, contributed an interesting and valuable article on Extirpation of the Rectum, by Volkmann's method, for cancer, with cases, in the *Medical Record* for July thirteenth. —Dr. Martin, of Berlin, reported to the Surgical Section of the British Medical Association, at its last meeting, a case of removal of the spleen. The patient was a feeble, hunchback woman thirty-one years of age, suffering from uterine disturbances which appeared to be aggravated by the spleen getting down into the pelvis. The operation was done under antiseptic precautions, the pedicle was long, and the wound healed by first intention. The subsequent history of the case is not given. There had been nine cases of splenotomy previous to this, of which three recovered, one died of pyæmia, two of shock and three of hemorrhages.

—Several cases have been recorded of mortification of stumps following the use of Esmarch's bandage in amputation.—*Boston Journal*.

—The New York Dispensary makes use of the following:—Pulvis Sennæ Compositus. R. Pulvis Sennæ, Potass., Bitart., Sulphur Sublim., of each two ounces; Pulv. Zinziberis, two drachms, Mix. Dose—one teaspoonful. —*New Remedies* gives the following formula for Elixir of Cinchona from Alkaloids:—R. Quinia Sulphate, eight grains; Cinchonia Sulphate, thirty-

two grains; Cinchonidia Sulphate, sixteen grains; Citric Acid, ten grains; Alcohol, (95 per cent.) two fluid ounces; Water, (boiling,) two fluid ounces. Dissolve the citric acid on two drachms of the water, to which add the alcohol, and to this solution add the quinia, cinchonia and cinchonidia, and then add the remainder of the water, which must be hot. Finally add the elixir. If desired this may be colored with tincture of cudbear and caramel.—Bromatic Dovers Powder is a very pleasant tasting preparation for children, which is used in Buffalo and made up thus, by A. R. Davidson, M. D.,—R. Pulv. Opii., Pulv. Ipecac, of each, one part, Pulv. Sacchari, six and one-half parts; Pulv. Cinnamoni, one and one-third parts; Pulv. Carophylli, one-sixth of a part. Mix thoroughly.—Goa powder or its active principle, chrysophanic acid is very highly recommended by Prof. Newman, Balmaino Squire, and others, in psoriasis. One drachm of chrysophanic acid is rubbed up with an ounce of hot lard and application of this ointment made at night to the affected part by means of a swab of flannel. This substance stains the skin and clothing, and therefore is of limited applicability. The dust of Goa powder is very irritating to the eyes of those engaged in preparing it.

—There were three deaths from yellow fever at the Brooklyn Navy Yard in July, but at present there are no cases there.

—"In the United States, with a population of 44,874,814, there are 62,383 doctors, or one doctor to every 600 persons. In France the population is 36,100,000, the physicians 19,902, one to every 1672 persons. In the German empire there are 13,686 doctors, and 41,060,695 inhabitants, one doctor to every 3,000. In the Austro-Hungarian empire, population 35,904,435, and 14,361 doctors,—one to every 2,500 persons. In Canada, with a population 3,570,577, there are 2,998 doctors, or one to every 1193 individuals."

—H. C. Lea has just issued a new edition of Gray's Anatomy. There have been three English revisions of this work since the last American edition was published, in 1870. The new issue is from the eighth enlarged and improved London edition and contains nearly one thousand pages, and five hundred and twenty-five illustrations. To it is appended also "Landmarks, Medical and Surgical," by Luther Holden, D. R., C. S., a small work recently issued here. The same publisher announces as in press:—the National Dispensatory, by Alfred Stillé, M. D., and John M. Maische, Ph. D.; a new edition of Barnes on Diseases of Women; and a Manual of Quantitative Analysis, by Alexander Classen. Fothergill's Antagonism of Medicines and a new edition of Bryant's Surgery will appear shortly. The following works are in course of preparation:—Cornil & Ranvier's Pathological Histology, translated with notes and additions, by E. O. Shakespeare, M. D., of Philadelphia; A System of Human Anatomy, in a quarto volume, by Harrison Allen, M. D., Professor of Comparative Anatomy and Physiology in the University of Pennsylvania; A Manual of the Diseases of Women, by James R. Chadwick, M. D.; also new editions of Playfair's Midwifery and Wells on the Eye.

—AMERICAN DERMATOLOGICAL ASSOCIATION. The next annual meeting of the American Dermatological Association will be held at the Grand Union Hotel, Saratoga Springs, N. Y., on the 27th, 28th and 29th of August. Many important papers will be read. Regular practitioners are cordially invited.

R. W. TAYLOR, M. D., *Sec'y.*

—AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES, will hold its Tenth Annual Meeting at Boston, Mass., Sept. 10th, 1878, in Union Hall. A very important meeting is anticipated.

T. D. CROTHERS, M. D., *Secretary.*

—In the year 1877, eleven hundred and forty-two horses were devoured in Marseilles. These figures indicate a slow but steady increase of the use of horse-flesh in that city.

—:O:—

Books Reviewed.

Transactions of the American Gynecological Society. Vol. II.

For the Year 1877. Boston: Houghton, Osgood & Co. Buffalo: Peter Paul & Bro. Octavo, pp. 697. Price, \$6.50.

This volume reflects much credit upon the Gynecological Society. Its well filled interior and its fine appearance are very attractive and markedly indicative of ability, industry and resources. Numerous interesting papers by members are followed by valuable discussions by leading men of our country in the specialty, on the subjects presented and thus a breadth of view and wisdom of conclusion are obtainable therefrom that are not to be gathered from the works of single authors. Besides this, by the meeting of distinguished authorities and the earnest labor of discussion, opinions are well sifted and the limits of knowledge better defined than could be without association work. Labor in the directions which are of present interest is organized, aid and facilities are interchanged, the time of reaching satisfactory conclusions greatly expedited, thoroughness of investigation secured, the number of the subjects unfolded, increased and general progress of science in various departments is greatly furthered by the association of investigators. We may fairly expect that in this way much of that which has been mysterious or ill-defined, in the field of gynecology will be cleared up.

The meeting of the Society was held last year in Boston, this year it will be held at Philadelphia on the eleventh, twelfth and thirteenth of September. Its membership at present includes forty-six fellows beside those who have been elected to honorary fellowship. It is the purpose of the Society to have the volume of the transactions of such value that it shall have extended sale.

The Address of the President, Fordyce Barker, M. D., is straightforward and earnest, advocating the maintenance of activity by the members of the Society and of whole souled devotion to truth-seeking in the department. John C. Dalton, M. D., by request, prepared a paper on the Corpus Luteum, true and false, which is given in the volume and accompanied by twelve fine chromo-lithographic plates, representing sections made in ovaries of menstruations and of pregnancy. Thirty-two sets of specimens of ovaries, with histories, were obtained by him as a basis for the paper and these are all described and such pictures of these as are desirable, accompany the report. The most lengthy discussion is that which follows the paper of Ely Van de Warker, M. D., of Syracuse, N. Y., on "The Present States of the Intra-Uterine Stem in the treatment of Flexions of the Uterus. The writer quotes history and authorities in favor of the use of the instrument and advocates its employment when desirable. Drs. Chadwick, Peaslee, Thomas, Goodell, A. H. Smith, W. L. Atlee, Wilson of Baltimore, Byford, Skene, Garrigues and J. B. S. Jackson, participate in the discussion of the paper during which the subject of pessaries is considered at length. The distinguished character of the speakers and the opposing views given, make the discussions of interest to readers. Vaginal Ovariectomy, by William Goodell, M. D.; Battey's Operation, by Robert Battey, M. D.; Amputation and Excision of the Cervix Uteri, by John Byrne, M. D.; Sarcoma of the Ovaries, by W. L. Atlee, M. D.; The value of Electrolysis in Ovarian Tumors, by Paul F. Mundé, M. D.; Absence and Atresia of the Vagina, by Thomas N. Emmet, M. D.; Important Points connected with Ovariectomy, by Gilman Kimball, M. D.; Rapid Dilatation of the Canal of the Neck of the Uterus, by Ellwood Wilson, M. D., are interesting subjects which are considered. An index of Obstetrics and Gynecological Literature of all countries for the six months preceding January 1st, 1876 is given in the volume and it is proposed to present a similar one for the year 1877, in the next volume of Transactions. All specially interested in Gynecology will much desire to read the volume.

On the Source of Muscular Power; Arguments and Conclusions drawn from Observations upon the Human Subject under Conditions of Rest and of Muscular Exercise. By AUSTIN FLINT, JR., M. D. New York: D. Appleton & Co. 1878.

This Essay was first printed in the Journal of Anatomy and Physiology in Oct. 1877. In its present form several errors which unfortunately were present in its first publication have been corrected and some additional matter incorporated with the essay. Dr. Flint does not hold with the theories now taught by many that organic life and all its processes can be simply and sufficiently explained by the laws, as far as we understand them, which govern inorganic life.

The question which he set about to solve is one which, though apparently simple, is so surrounded and involved by complex physiological phenomena that the problem becomes one of no small magnitude.

The question directly involved is: Does food by its transformation become directly concerned in the production of muscular power or does "muscular effort involve changes in the muscular substance itself, this substance being destroyed as muscular tissue, discharged from the body in the form of excrementitious matter, and the waste being repaired by food." In the solution of this question Prof. Flint gives in full the details of experiments and observations made upon the pedestrian Weston. We have not space to follow these interesting experiments but will say that they were carefully made and the results of observation conscientiously recorded.

Dr. Pavy in some experiments made under similar circumstances with Weston has reached results which differ materially from those here recorded, but Dr. Flint shows in several instances palpable sources of error in Pavy's investigations. The work is one which will be read with interest and coming from the source it does, cannot but have a large bearing upon the question. We have only room to give the authors conclusions, which are summarized in the following paragraph:

Finally, experiments upon the human subject show that the direct source of muscular power is to be looked for in the muscular system itself. The exercise of muscular power immediately involves the destruction of a certain amount of muscular tissue of which the nitrogen excreted is a measure. Indirectly nitrogenized food is a source of power, as, by its assimilation by the muscular tissue, it repairs the waste and develops the capacity for work; but food is not converted into force in the living body, nor is it a source of muscular power except as it maintains the muscular system in a proper condition for work.

We advise those of our readers interested in the subject to read the work. They will find in a small space a large amount of valuable information, carefully drawn from well conducted observation.

A Manual of Operative Surgery. By LEWIS A. STIMSON, B. A., (Yale), M. D., Surgeon to the Presbyterian Hospital, Professor of Pathological Anatomy in the Medical Faculty of the University of New York. Philadelphia: H. C. Lea. 12mo. pp. 477. With Three Hundred and Thirty-two Illustrations.

This is an excellent Manual of Surgical operations, describing in brief the methods now in practice by the most distinguished and best operators. It is a desirable work to have, because it presents quite a number of methods of operations by foreign surgeons with illustrations, that have not been given in our larger works upon surgery. The descriptions are very clear and concise

and the recommendations are generally very good where they are given though the reader is for the most part left to his own judgment in choice of method. One of the best sections of the book is that which treats of plastic operations upon the face and eyelids. The subjects of excisions and amputations are very fully presented and well accompanied by illustrations. Ollier's and Langenbeck's operations upon the superior maxilla and for nasal polypus, Volkmann's excision of the rectum, operations upon the vagina and the cervix uteri are well described. The author has succeeded admirably in his purpose to present a manual of the different surgical operations now in vogue, and his work will have a large sale. It says very little on the advisability, or choice of methods of operation, and is therefore not a substitute for, but a good accompaniment to other systematic works.

—:O:—

Books and Pamphlets Received.

Anatomy, Descriptive and Surgical, by Henry, Gray, F. R. S., fellow of the Royal College of Surgeons, and lecturer on Anatomy at St. George's Hospital Medical School, with five hundred and ninety-two engravings on wood, a new American, from the eighth and enlarged English edition. Philadelphia: Henry C. Lea. Buffalo: Theodore H. Butler. pp. 983. 1878.

On the Therapeutic Forces, by Thos. J. Mays, M. D. Philadelphia: Lindsay & Blakiston. Buffalo: T. H. Butler. pp. 143. 1878.

Fownes' Manual of Chemistry. Theoretical and practical; revised and corrected; by Henry Watts, B. A., F. R. S. Philadelphia: Henry C. Lea. Buffalo: Theodore H. Butler. pp. 1627. 1878.

Annual Reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal years 1876 and 1877. John M. Woodworth, M. D.

Minutes of the State Medical Society of Arkansas, at its Third Annual Session, Little Rock.

Forceful and rapid Dilatation of the Cervix Uteri, for the relief of Stricture, Chronic Endo-Cervicitis, Chronical Cervix, Flexions, Sterility, etc., by John Ball, M. D., of Brooklyn, N. Y.

Addresses delivered June 13, 1878, by B. L. Hovey, M. D., of Rochester, N. Y., before the Alumni, and Wm. C. Wey, M. D., of Elmira, N. Y., before the Graduating Class of the College of Medicine, of the Syracuse University. 32 pages.

Transactions of the Medical Society of the State of New York, for the year 1878. Truair, Smith & Bruce, printers, Syracuse. pp. 329. 1878.

Bibliotheca Medica. Robert Clarke & Co. Cincinnati.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

OCTOBER, 1878.

No. 3.

Original Communications.

—:o:—

ART. I.—Rachitis.—By JOSEPH FOWLER, M. D. Read before the Buffalo Medical Association, May 31st, 1878.

With few exceptions American writers upon the subject of this paper discuss it very briefly, probably for the want of personal experience—the disease prevailing to such a limited extent on this continent, and simply give their readers the result of foreign research and observation, perhaps indulging in a variety of hypothetical reasoning.

Rachitis is essentially a disease of infancy and childhood, and this may be the proper explanation of its omission in many of our principal Text-books of Practice; and even authors of works treating on infantile diseases sometimes fail to call attention to the affection, possibly because it is classified by almost unanimous consent, with bone diseases, and left for writers upon that subject to describe.

American literature, then, we find strangely deficient, only a few lengthy articles having been written upon the subject, of which probably the most exhaustive is that of Dr. Parry, which appeared in two numbers of the *American Journal of the Medical Sciences*,

for 1872. It reviews all known opinions upon the subject, and gives his own personal experience in Philadelphia.

Most of the serious diseases of childhood, and I might say adult life, prevailing in one civilized country are usually found to exist in all others in a singularly relative proportion, as diphtheria, phthisis, the eruptive fevers, &c., and it strikes us as quite remarkable that in London a form of disease, possessing all the characteristics that rachitis does, should exceed in frequency all other infantile disorders, and still its existence be so very rare on the Western continent.

The first comprehensive description given of rachitis was by Glisson, and his associates, a little more than two hundred years ago, but this was ante-dated by a book written by David Whistler in 1645, from which Glisson acknowledges to have obtained the term *ricketts*, and from the opinions of these gentlemen it was assumed or believed that the disease had its origin in Western England about this time, and from this and probably its constant appearance subsequently, it was known to the continental physicians as the English Malady, although some accounts given in ancient history of certain peculiar deformities of the human skeleton, it is not unlikely that the disease existed on the European continent long before Whistler and Glisson wrote about it.

Rickets, says Bristow, is a disease of early childhood, characterized by softening of the bones, with enlargement of the joint ends of long bones, enlargement of spleen and liver, and coincident symptoms of ill-health.

Erichsen describes it is "a disease of early life." In it the structure of the bones is changed, the earthy matter being deficient so that the bone continues to be soft, flexible and cartilaginous in structure, &c.

But few writers define the term so briefly, and all unite in a general description of the affection as just quoted.

The ætiology of rachitis does not seem to be well understood, notwithstanding the fact that the disease has been probably as closely studied as any other single affection.

Some would say it had its origin in the nutritive functions; others that the primary lesion was to be found in the ossous sys-

tem. Again, this one speaks of it as a distinct disease, possessing characteristics peculiar to itself; and that one regards it as only a variety of a species in which might be included *fragiletas osseum*, *osteo sarcosis*, &c. Another makes brief mention of it under the head of scrofulous disease of bones.

To the unqualified statements of American writers, that rachitis is exceedingly rare on this continent, Dr. Parry takes exceptions, based upon his own observation, and says that in the children's department of the Philadelphia Hospital at least 28 per cent. of all the sick children between the ages of one month and five years that have come under his observation during the last three years, have been rachitic. He still goes on to say that he is irresistibly forced to the conclusion that rachitis is scarcely less frequent in Philadelphia than it is in the large cities in Great Britain and the continent of Europe.

The want of harmony between this statement and those of other American writers, where each has nearly the same opportunity for observing, naturally leads us to enquire into the causes of these differences of opinion. To prove the extent of the prevalence of rachitis on the European continent, Dr. Parry reports Rittershaine as having seen the disease in 31 per cent. of children under five years of age who applied for relief at the Medical Clinic at Prague. Gee found 30-3.10 per cent. of those under two years of age admitted to the Hospital for sick children in London. Mercier stated that 20 per cent. of children in the upper classes were rachitic. Ritchie of Manchester says that out of 728 children under five years of age about 30 per cent. were afflicted with the disease.

Henoch confirms Rittershaine's estimate. I mention this for the reason that Dr. Parry says they are all the figures which we possess upon the subject. Bauer, in his work on diseases of bone, says, when speaking on the subject of rachitis, that during a practice of fifteen years he had not seen an aggravated case. Markoe says the disease is so rarely seen in this country that he cannot speak from his own observation. Meigs and Pepper regard the disease as vastly more common among the poorer classes in London than among the same classes in this country.

To my knowledge no statistics on this point have been published

in this country, aside from those mentioned by Dr. Parry in his paper on this subject. I have attempted to gather some additional figures, but find most of the Hospital and Dispensary reports almost valueless, not containing a classified or tabulated statement of their work.

At the Columbia Hospital Dispensary, Washington, D. C., from Sept. 1st, 1869, to July 1st, 1872, 1,028 children were presented for treatment and their diseases classified, out of which eleven (11) were found to have rachitis.

In the absence of more important facts, I find in the report of the Buffalo Dispensary Association, that from Oct. 1st, 1876, to the present time, fully 500 children came under my observation, and of this number not a single well-marked case of rachitis was observed. During the previous year, by reference to the printed report, 369 children were treated, not one of which had the disease. For one and a half years' service as Resident before this time I do not recollect of seeing a single case of rachitis.

I am informed by the resident physician in charge of the Erie County Alms-house during the years 1864-5, that fully 600 sick children were presented for medical treatment, and of this number but one or two cases of rachitis were seen.

Dr. Parry says, "he can only account for this difference of opinion between American writers and himself, that while they recognize the grave forms of the disease, they fail to appreciate the characteristic symptoms of the early stages of the affection."

Now, if we can see what the so-called characteristic symptoms are upon which Dr. Parry bases his diagnoses in the early stages, before there is any manifest change in the osseous system, perhaps we can discover an explanation for the frequent occurrence of the disease in his own private and hospital practice, as compared with that of others in his own city and elsewhere. Again, when he says the disease has no definite course to run, and one that may be arrested at any stage of its progress; nearly always preventable, and if treated properly will nearly always end in recovery, we might go back still further and ascertain what the gentleman terms rachitis.

In his essay he points out three important symptoms, two of which are almost invariably present during the stage of incubation:

so-called by *Guersant*, and almost pathognomonic of the disease. These, he says, are sufficiently striking and should always lead the physician to suspect the presence of this cachexia. Nay, more; they are so characteristic of the affection which we are discussing, that it at once becomes the duty of the medical attendant to place the patient upon treatment for rickets.

Making this statement so strong it is proper to assume that upon the presence of these he fixes his diagnoses, whether subsequent bone changes take place or not.

The two symptoms just alluded to are profuse perspiration of a local character, and heat of surface, most marked at night time. The third, tenderness of the surface, pointed out by Jenner, Meigs and Pepper, Neimeyer and others as either preceding or accompanying the profuse sweating and heat of surface, as Dr. Parry thinks, is very often wanting during this stage, and when present is associated with the bone lesions of the second stage or stage of deformation. Markoe says the desire to be cool at night is so common among children otherwise perfectly well that it cannot of itself be considered characteristic, but thinks that the most characteristic symptom of all is a general tenderness to the touch of the whole body.

In addition to these, Dr. Parry goes on to state, are other symptoms of minor importance, which are irregularly associated with those of the first stage, such as enlargement of the veins of the scalp, more or less emaciation, &c. The three symptoms considered to be of so much importance were pointed out by the old writers, but Dr. Parry "thinks they have not received the attention of the profession which their importance demands."

The sweating spoken of takes place usually during sleep and under the most trivial excitement or physical effort. The pillow upon which the child lies will be found saturated with perspiration where it comes in contact with its head. It rolls its head from one side to the other until its occiput is worn bald. Its restlessness appears unceasing. During all months of the season and all seasons of the year the child may be found at almost any hour of the night uncovered and naked.

Is not this the history of hundreds of children who remain stout

and healthy through their infancy and childhood, and the presence of rachitis never enters the mind of the family physician.

The attention of the physician is often called to just this condition of cephalic sweating and nocturnal restlessness, with often increased cutaneous temperature, particularly of the former, as there seems to be a notion among mothers and nurses that this profuse perspiration is due to a largely developed brain, and we hear them say the child has too large a head, or is too smart to live; but, fortunately, our children do not often die from such causes. That there are definite predisposing causes no one will deny, but what they are we do not know.

For ourselves, on account of the rarity of the disease among us, no reasonable opportunities are offered for ascertaining in what the morbid element is contained or of what it consists.

It has been thought by some that syphilis might act as the great predisposing agent, but this theory lacks confirmation by foreign physicians; surely if the doctrine were tenable American practitioners would not want for rachitic patients, for syphilis is not by any means a scarce possession in this country. Heredity has been traced only to isolated cases.

Whether or not it is dependent on a scrofulous, tubercular or strumous diathesis, opinions are as diversified as they are numerous. In support of its scrofulous origin stand the names of Sir Charles Bell, Simon, Dupeyron, Watson, Whitehead, Condee, Hering, Rittershaine, Stewart, Merei, Aitken, Willshire and others, among whom are some American writers, while Meigs and Pepper, Holmes, Jenner, E. Smith, Routh, Markoe, Parry, and particularly the more recent writers on the subject, believe the disease is not due to hereditary influences unless in exceptional cases, and the cause must be looked for in the character of the surroundings of the child and its life-giving principles. There are others who believe it is sometimes due to one and sometimes to the other, or the combined influences of both.

Although many of the old writers believed the disease was as frequent in the upper classes as among those of the poor, the observations made during the last half century would hardly corroborate this opinion, or that of Bauer, who says rachitis is eminently a dis-

ease of pauperism, but would go far to establish an intimate relation between the causes of the affection and unwholesome nourishment, etc., in many cases. The theory that rachitis was due to the presence of bronchitis, whereby the blood was not thoroughly oxidized and carbonic acid allowed to accumulate in the system, which, according to Virchow, is the agent holding the elements of bone in solution before they are permanently deposited, re-dissolves them when they are carried off as an excretory product, has not been favorably received. Among others, one of the most ancient theories ever advanced attributes the causation of the disease to a morbid state of the nervous system. Although much progress has been made in the study of nervous disorders, I am not aware of any recent discoveries and evidences in support of it.

If muscular activity develops the size and strength of the bones to which the muscles are attached in the same proportion as it does the muscles themselves, and inactivity of the latter produces atrophy of both, it would seem that an unhealthy condition of the bones might be induced by a perverted or deficient nervous power. With our present knowledge of the causes of rachitis, we know that it is most frequently found in illy-ventilated habitations where there is a cold, damp atmosphere, and among those children least cared for, subsisting upon unwholesome nourishment, and we might add, good food unsuited to the age of the child. In short, those influences which we believe to increase the fatality of scarlatina, rubeola, and develop malignant diphtheria, etc., are probably the same as favor the appearance of rachitis *more than all others*. This view I believe to harmonize with the opinions of recent observers who have watched carefully the development and progress of the disease in the large cities of Europe.

To ascertain what influence improper nourishment would have, if any, in the development of rickets, M. Guerin made an interesting experiment on young puppies while they were still dependent on their mother for nourishment. The natural food was discontinued and raw meat given instead, when it was found at the end of four or five months rachitis was well marked. This leads us to say that rickets has been seen in the wild and domestic animals, as well as in the human being. Of these can be mentioned

the lion, monkey, horse, ox, pig, sheep, &c. Geese and ducks have been known to suffer from enlargement of the extremities of bones, with curvature of the long bones when confined in damp, cold apartments, but soon recover after being removed to dry, warm pens, and well nourished.

Rachitis appears in children between the ages of six months and two and a half years, rarely seen before or after these ages, a time in life which might justly be called the *critical period of infancy*, a time when the process of dentition is most active, and when important physiological changes are going on in the intestinal tract and elsewhere, when the function of nutrition is most susceptible of perversion.

Leaving the maximum age in children in which rachitis usually develops itself, passing on to adult life, we rarely observe any similar forms of disease attacking the bony skeleton. Again, leaving this period, and as we approach that of declining old age, occasionally have been seen adults suffering from extreme fragility and flexibility of the bones, which in many particulars seems identical to rachitis, but which has been classed by systemic-writers as a distinct disease of itself, on account of certain peculiarities it is said to possess, differing both in pathology and physical symptoms.

I allude to Osteo-Malacia, Osteo Sarcosis, Mollites Osseum.

In all the cases of this disease reported no two have been identified in their nature, and it is impossible to fix upon a definite train of symptoms which either precede or accompany the disease as it progresses.

Among those suffering from this disease many curious phenomena have been witnessed. Giants have been reduced in physical proportions to mere children in size.

The prophet *Getleb* was so flexible that he could be folded and packed in almost any imaginary manner.

Osteo Sarcosis appears, says Bristowe, in the American reprint of his book on Theory and Practice, published two years ago, to have been recognized, indeed, only in women, and for the most part in women who have borne children. This gentleman must be in error in making this statement, or else is in ignorance of, or does not consider worthy of consideration the observation of *Killian*,

who says it most commonly occurs in females but not invariably. *Litzman* collected 131 cases, of whom 83 were females in the parturient state, and of the remaining 46, 35 were females and 11 males. To these can be added other similar statistics which American authors mostly accept without comment.

By some this disease is believed to be only a variety of rickets attacking adults, and is so treated in the *Cyclopædia of Practical Medicine*. Efforts to ascertain the cause of Osteo Sarcosis have been just as unsatisfactory as those to determine the definite cause of rachitis, which at the present must be acknowledged as exceedingly obscure.

Holmes makes a distinction between the two diseases, and says rickets is an affection of early life, closely allied to scrofula in its causation and in its cure; it is peculiarly amenable to treatment; and under favorable circumstances the constitutional cachexia, which is its essence, readily disappears as the child grows. *Mollites*, he still adds, hardly ever makes its first appearance till after middle life; it shows no alliance with scrofula, and is not amenable either to the remedies for that disease, or as far as known, to any other remedies, but pursues its course unaffected for good by any medical treatment. He thinks malacosteon has a strong resemblance to malignant disease.

In the developing stage of rachitis there is said to be an entire absence of pain, while in Osteo-Sarcosis, pain is constant and severe. In rachitis there is a want of deposition of the earthy salts, while in malacosteon these same conditions exist with complete destruction, disorganization and resorption of the hardened bone, which cannot be restored. A rachitic bone is only modified in character, and susceptible of reorganization and restoration.

Of all the phenomena to be studied in an unmistakable case of rachitis, none are so important and interesting as the peculiar changes which take place in the osseous system. The bones not only become soft and pliable but undergo changes in form, the ends of the long bones enlarge mainly at the expense of their cartilaginous covering, and soften in consequence of deficient ossific deposit. The flat ones become thickened, more marked at their sutural margins than at their central points of ossification, while in some cases

there is softening and resorption of the earthy matter at certain situations in the cranial bones, usually of the occipital and parietal. They are found at points which have been longest ossified, and probably due to pressure of the pillow upon one side, and the intracranial substance on the other. As many as 30 or more of these spots having been seen in the same individual at the same time.

Associated with this condition of craniotabes, it is not uncommon to find laryngismus stridulus, which, according to some writers is almost invariably present, and is only found in rachitic children. Whether this be so or not, to say the least, it is an unfavorable symptom, and those so affected usually die.

Accompanying these changes is an arrest of growth, which becomes most apparent in the face, giving the skull the appearance of enclosing a largely developed brain, but according to Dr. Shaw who has determined the relative size of rachitic skulls by actual measurement of many, says this is not the fact, but on the contrary they invariably fall short of the average size. This arrest of development preserves for a time the fetal type, and the appearance is only imaginary and not real, and the prominent forehead and precocity of intellect delusive in character.

Dr. Shaw observed another curious fact, that the orbital cavities do not vary perceptibly in rachitic skulls from those of giants.

The pelvis becomes distorted, its antero-posterior diameter at the outlet is greatly diminished, while its transverse diameter is increased, which is said to differ from pelvic deformity due to osteosarcoma, in which the lateral diameters are diminished, and the antero-posterior diameter increased.

Dr. Shaw's measurement of a number of rachitic pelvises shows the average amount of deficiency in their diameter to be one quarter their normal diameters. His explanation is, that during intrauterine life, the upper half of the body grows more rapidly than the lower half, and after birth this process of development is reversed, and if rachitis appears this rapid growth of the lower half is suddenly checked, and the pelvis retains its infantile proportions in addition to deformity due to softening of its bony walls. Important changes take place in the shape of the thoracic walls, the blood vessels are sometimes changed in their courses. The position

of the spinal column is altered and various abnormal conditions of the liver, heart, spleen, lungs, lymphatic glands etc. are often present.

Many of these changes are due to mechanical causes, and have little, if any, pathological bearing in the causation of the disease.

Of all the deviations from the structure of normal bone, none are more interesting and important than those of the minute anatomy of the bone tissue and adjacent parts.

The periosteum after being removed from the bone will be found vascular, somewhat thickened, and if it presents any of the evidences of inflammation, as *Mayer* says it does, they are not so well marked as in osteo-myelitis. It is the same writer who suggests that periostitis may be the proximate cause of rachitis. Underlying the periosteum is found a soft spongy substance of rather a deep purple color, and entangled in this can be seen recently formed ossific matter.

So long as pathologists disagree in the manner in which normal ossification is performed, it occurs to us that it will be impossible to determine exactly how a retrograde process can be followed up.

To make a general statement, it can be said, that in rachitic bone there is a reversal in the relative proportion of its organic and earthy constituents. A healthy bone contains one part organic and two parts inorganic matter. In a rachitic bone there are two of the former to one of the latter, by reason of the withdrawal of a portion of its inorganic elements.

Rokitansky says that this process may be affected in two ways, acting at the same time and independently of each other, either one of which may preponderate. In the first the bone is expanded, its canals and medullary spaces become enlarged and filled with a yellowish red or brown gelatinous substance; its blood vessels expand, become more numerous and fill with a dark colored grumous blood.

In the second, the mineral constituents disappear, leaving the bone of its original size and shape, but flexible and cartilaginous in structure.

What would be important to know, pathologists do not state in what tissue or structure of bone these processes begin; and what is

more, I believe that most of the specimens examined have been dried or allowed to macerate for a considerable while, which allows time for further changes and wasting of its destructible material.

The hypothesis that lactic acid may dissolve the phosphate and carbonate of lime would seem to yield to the fact, that its presence in rachitic subjects is not constant. Often the vascular tissue of rachitic bone shows the presence of alkalies in excess. What seems curious and should have been mentioned while contrasting the two diseases, osteo-sarcosis and rachitis, Hintzman, of Vienna, concludes from experiments made, that the continuous administration of lactic acid to carnivorous animals is capable of producing rachitis in the young, and osteo-sarcosis in the old ones; and that these two conditions are identical processes.

Vogel, Reindfleisch, Humphry, Kolliker and Virchow are of the opinion that the preparatory processes go on normally, but become arrested just as solidification is about to commence. There appears no proof that the salts of lime are absent from the blood, and in most cases they are found so abundantly in the urine as to give it a muddy appearance, although some have failed to discover any of the phosphates in the urine in the cases they have examined, still there is no reason why the composition of the urine should not vary in rachitic persons as well as in healthy subjects.

Holmes when speaking of scrofula in bone, says the leading features of the pathological anatomy of strumous inflammation are the same as those of osteitis in general, and the only distinctive anatomical peculiarity consists in the nature of the exudation which chokes up the canals of the bone. Dr. Black concludes, after repeated analyses, that tuberculosis gives rise to a considerable increase of fat in the diseased bone, large diminution of the organic matrix, and an increase of soluble salts. The canals in the interior of scrofulous bone are enlarged and filled with a reddish jelly like material. The bone substance can be cut readily with a knife.

From pathological conclusions, it would seem clear, that in rachitic bone, can be found all the attributes of inflammation, viz: increased vascularity, hyperæmia, morbid secretion, proliferation of the cell corpuscles in the connective tissue, destruction of normal tissue, etc.

Paget found a large amount of fat present, and believed rachitis was a process of fatty degeneration.

Von Bebra found in a radius of a rachitic child but 6 per cent. of fat. Stroymeyer is probably nearest correct, when he says the pathological lesions are identical with osteitis. Other pathologists are strongly inclined to favor this opinion, and nearly every writer on the subject declares that the bone changes are closely allied to inflammation, if indeed that is not precisely its true condition.

Those who recover from the disease after it has progressed to softening of the bones, remain more or less permanently distorted. The bones become unusually hard and brittle, some of the flat ones acquiring great thickness, which is well to remember when operating upon them. The deposition of ossific matter goes on beyond the limit of ordinary repair.

In flat bones which have become bent at an angle, by either superincumbent weight or muscular contraction while in a flexible state, it is found that at these points the vascular interior has become a solid bony mass, and probably for additional strength at this weak point, there appears a deposition of inorganic matter on its concave surface by a process not unlike that which takes place in the more simple forms of animal life, a process differing from that of repair of bone in the more complicated animals, following a general law that the reparative process of nature in the osseous system is in an inverse ratio to the complexity of the organism. Thus, nature repairs quicker and more permanently, the fractured shell of an oyster, turtle or lobster, than a broken bone in man.

We even observe in some of the lower animals a whole limb restored after having been torn from the trunk, and some of the *Radiata* if divided in pieces, a perfect animal may be developed from each subdivision.

In some the growth of bone is excessively exaggerated and knotty, growths spring from different parts of the skeleton which in many cases are unique in form and structure. Anchyloses of the joint surfaces and osseous union of all bones separated by a cartilaganous substance, is liable to occur. A case of this kind was reported in Ireland over two centuries ago, where the skeleton of a man,

who died at the age of 61, was found to be composed of one continuous bone from the top of the head to the knees. This individual, it was said, had rachitis in early life.

In treating rachitis, practitioners have been guided very much by the theories they respectively entertain concerning the causation of the disease. On the hypothesis that the cause lies in a deficient supply of the lime salts; lime has been administered in all its forms, but without vary gratifying results. The advocates of the lactic acid theory, have likewise failed to cure their patients by prescribing with a view to antagonize this supposed chemical cause or lactic acid diathesis. As it is true that the blood in rickety subjects contains the salts of lime in normal proportions, so is it true that the tissue of rachitic bone sometimes responds to alkaline reagents, therefore it would seem that the fault must be not in the absence of one or the presence of the other, but in a misappropriation of the lime elements.

After a vast amount of experimentation in treating the disease upon hypothetical notions, the therapeutics have been singled down in the main to the identical substance they fed their children on the shores of the Baltic long ago, Cod Liver Oil. The emulsion is probably the most efficacious form to administer, not for the reason that it furnishes lime to the softened bones, but because it is less liable to produce nausea, is more easily retained in the stomach, possibly more readily digested and absorbed, and often no doubt acts kindly in correcting any irritable state of the alimentary canal, which is apt to coexist with the affection.

Some authors would treat the disease antiphlogistically with antimony, mercury, etc., in the first stage, on the ground that it is inflammatory in its nature and should be managed the same as inflammation in other tissues. I believe nearly all authors now concur in advising a supporting treatment from the beginning through all stages of the disease, with such modifications as each individual case would seem to require. During the stage of softening or deformation, physical exercise should be interdicted and absolute rest insisted upon, and through this period of repose, motion of all the joints ought to be made daily, lest, should be added ankylosis to deformity. Quinine, iron, etc., can be given judiciously in

many cases and the patient placed upon nutritious diet, with milk in abundance. Surroundings should be made as pleasant and healthful as possible. Through the whole course of the disease out door air will be found invigorating to the patient.

With reference to the application of mechanical appliances to prevent the flexible bones from becoming permanently distorted, I shall say but little. General practitioners usually discredit their utility, while surgeons as often believe they can be made serviceable in most cases. Should they be resorted to great care must be taken, lest by pressure upon the soft parts they do more mischief than good.



ART. II.—Abstract of the Proceedings of the Buffalo Medical Association. May 31, 1878. Reported by JOSEPH FOWLER, M. D., Secretary.

Members in attendance: Doctors J. F. Miner, Lothrop, White, Wyckoff, Rochester, Hauenstein, Bartlett, Wetmore, Brecht, Howc. S. S. Greene and Fowler.

The President, Dr. Lothrop presiding.

The regular order of business was suspended, to give Dr. J. F. Miner an opportunity to present a young man aged 19 years, who had recently dislocated his wrist. A month ago yesterday he fell down stairs, producing an injury of such a nature that the distal extremities of the bones of the forearm rested on the posterior portion of the carpus, which required a considerable force to reduce. This, the doctor said was one of the rarest dislocations in surgery, and demonstrates clearly that this dislocation does occur without fracture, though it has been denied by some surgeons.

Dr. Rochester said he knew the history of this patient, who had previously acted as his office boy.

He was seen soon after the accident by another physician, who told him his wrist was fractured, and proceeded to dress it by applying some kind of an apparatus, remarking that it would be necessary to break it over, to get it right.

He could detect no fracture, and referred him to Dr. Miner for treatment.

Dr. Fowler read a paper on rachitic disease—published elsewhere in *Journal*—When the reader had concluded, Dr. White arose, he said, to commend the paper, which had gone over the subject so fully, rather than attempt to add much thereto. It was one to which he had given much study in early professional life, and he found then as now, that there was much doubt as to its causation and pathology. There is nothing that strikes the American tourist in London so forcibly as the proportion of crooked legs he observes there; this deformity being vastly more common with them than with us. Why this should be so was difficult to explain, when we were surrounded by the same apparent influences which seem to be so fruitful in the production of the disease abroad.

Why Dr. Perry should have given as the result of his experience in Philadelphia, such a large percentage of rachitic patients, which nearly equalled that of London, he could not tell. Other practitioners in the same city fail to confirm his observations. Probably Dr. Perry was very enthusiastic upon the subject.

Dr. W. believes that locality has very much to do with its production. Why stone in the bladder is so frequent in some localities and almost unknown in others is a curious question to propound. The chemical theory, he thinks, a very unsatisfactory explanation of the disease. A treatment based upon this hypothesis generally failed to produce good results. The doctor believes the causes are external, and the treatment mentioned in the paper to be the proper one, viz: Hygienic care, tonics, good milk in abundance, etc.

Dr. Rochester said the disease was diffused in all classes. In England the usual diet differed very much from our own. The people in general eat very little meat. Why goitre is so common in certain localities could not be satisfactorily explained. Suspect that locality has something to do as a cause of rachitis. Dr. Perry was probably too enthusiastic, and that the symptoms he considered diagnostic of the presence of the affection, were not such as would warrant us in pronouncing the disease rachitis. Anything that produces cachexia is another element to be considered. We can often trace many cases to syphilitic and tuberculous parents. Think there may be something in race also, as there is a

proneness of the Negro, to this form of disease. Deformity of the pelvis being much more frequent in the Negroes than in other races, but after all we believe the great cause to be found in locality.

Dr. Bartlett was of the opinion that the unfortunate condition of the London poor, their surroundings and habits differing so much from those of similar classes in our own country, might explain in a measure the great frequency of the disease among them. The dense fogs that envelope London, the limited amount of light the poor are allowed in consequence of the window tax imposed on them, the badly drained localities in which the poor reside, and the unwholesome food upon which they subsist, all probably combine to favor the production of the disease.

Dr. S. S. Greene said he desired to report a case of cerebro spinal meningitis. The patient was a young lady 18 years old. She was suddenly seized with convulsions, opisthotonus being present. She would throw herself about and bite her hands if not restrained. Gave sulph. Ether by inhalation, and chloral and morphine in full doses. Consciousness returned in about 48 hours when he gave 10 to 15 grains of quinine every four hours. Under its use she got quite well, and went to visit her grandmother when she had a relapse, her condition being as alarming as before. A similar treatment was pursued, and she has now almost entirely recovered. Dr. Greene said he would like to hear Dr. Rochester express his opinion of the case.

Dr. Rochester said he had known of the young lady's illness, having made visits in the same neighborhood at that time, and judging from the symptoms as given by Dr. Greene, he believed the case was one of hysteria, and not cerebro spinal meningitis; at least he believed many of the symptoms were hysterical.

Dr. Greene asked if it was common for hysterical patients to complain of pain in one limb.

Dr. Rochester replied, that hysteria simulated every known disease on the face of the earth.

Dr. Howe, chairman of the Executive Committee, reported that the following gentlemen had agreed to present papers at future meetings of the association:

July 2. Dr. Bartlett; subject, Accidental Hemorrhage.

August 6. Dr. Rochester; subject, Pulmonary Diseases of Elevator Employés.

September 3. Dr. Strong; subject, Practical Consideration concerning Puerperal Fever.

October 1. Dr. Bartow; subject, Influence of Alcohol upon the Liver.

November 5. Dr. Hartwig; subject, Modern Surgical improvements.

December 3. Dr. J. F. Miner; subject, The Diagnosis of Disease without Physical Signs.

On motion the report was adopted, and authority granted to have the same printed for distribution among the members.

Dr. Wetmore reported having seen during the week three cases of strangulated hernia, two of which he reduced by taxis, and the other he operated upon, liberating two knuckles of intestine and some omentum.

On motion, the Association adjourned.

—————:o:—————

ART. III.—Dermoid and Ovarian Cysts—Uterine Fibroid Tumor.

Cases occurring in the practice of Dr. B. B. Ross, East Saginaw, Mich. Reported by Dr. C. H. EAMES.

Mrs. C., aged 40, Canadian; has always been a delicate woman; is the mother of five children, the last of which was born in June, 1878, and was a puny child, living but a few weeks. She first noticed a tumor in right iliac fossa six years ago, which was then as large as a small orange, and increased, but slowly, until date of last pregnancy, at which time it was pushed up into right hypochondrium, and began to grow rapidly, menstruation extremely painful and profuse since then, confining her to the bed. For several months she has been unable to evacuate the bowels or allow the escape of flatus, except by getting down on her hands and knees. Ovarian tumor was diagnosed, and on July 30th, in the presence of a number of physicians, Dr. Ross removed an unilocular atheroma—cyst of right ovary, weighing 15 pounds, and a smaller multilocular cyst of left ovary. The atheroma cyst contained a number of well formed teeth and a mass of hair. The

multilocular tumor consisted of six small cysts, containing a serous straw-colored fluid, and one with atheroma-pulp.

The tumors were removed by enucleation, as performed by Prof. Miner, of Buffalo, the peritoneal capsule being dropped back into the abdomen after the bleeding (which was very slight) had ceased, no vessel demanding ligation appeared, and but two small points requiring torsion.

The abdominal wound was closed with silk sutures, which also included the peritoneum, and united throughout by first intention. The temperature at no time rose above $102\frac{4}{10}$ ° F., which occurred on the third day after the operation, at 2 A. M., pulse then 120. The patient sat up on the twelfth day, and was discharged on the thirtieth, in excellent spirits. It may be well to mention the existence of a loud presystolic heart murmur, with soft and irregular pulse in this case and that chloroform (Squibbs) was used for anæsthesia, producing no untoward symptoms.

Mrs. H., Canadian, aged 45, has borne three children, the last 12 years ago. On January 20th, 1877, Dr. Ross was called in consultation with Dr. J. R. Jones, of Midland. Patient anæmic and much emaciated; pulse 98, soft and irregular; lower extremities œdematous; heart not perceptibly enlarged, soft systolic murmur and rather feeble first sound; no history of rheumatism, urine albuminous at all times. Profuse leucorrhœa. Her health had been good until six months previously, when she noticed a tumor well down in the vagina, which she called "falling of the womb," and commenced to suffer from profuse loss of blood at menstrual periods.

Examination revealed a fleshy tumor, hard as a child's head, and completely filling the vagina, protruding slightly therefrom. Artificial aid is required for evacuation of bowels and bladder. Diagnosis, fibro-polyp of uterus. On January 22d the patient was anæsthetised with chloroform and an attempt made to pass a wire ecraseur around the pedicle, which was unsuccessful, for lack of room, the capsule of the tumor was thereupon cut open, and the mass cut away with curved scissors "piece-meal." When the tumor had been reduced in size as much as possible by this means, a blunt hook was introduced over the finger, within the capsule, and passed

around the pedicle, and by firm traction the remaining portion was torn loose. The sack was then removed with the scissors, and found to have sprung from the posterior wall of the convix, immediately within the os. The patient rallied well from the chloroform, and on the sixth day sat up in bed for her meals. When sitting up at breakfast on the tenth day, and without giving any warning, she fell back and expired. Any opinion concerning the cause of death in this case must be mere conjecture; but Dr. Ross is inclined to attribute the unfortunate result to an over-distended fatty heart, or perhaps to embolism.

Mrs. L., American, aged 34, has been married five years and never pregnant. She had always menstruated normally, until January, 1877, when dysmenorrhœa and metrorrhagia commenced, and have since become very much aggravated, especially the latter, confining her to the bed for nearly half the month. In the spring of 1877 she noticed a swelling in the hypogastrium; she was treated by a Homœopath until June of the same year, when Dr. Ross was called. The patient was then much exsanguinated and very nervous. An examination revealed an intramural fibroid tumor, occupying the anterior wall of the uterus and extending two-thirds of the way from the pubic crest to the umbilicus, also involving the vaginal portion of the cervix for three-fourths of its circumference. The sound passed to the depth of six inches, and showed the uterus to be slightly anteverted. The persevering use of sponge tents failed to dilate the cervical canal sufficiently to admit the finger, and four Molesworth's dilators were ruptured in the attempt with little better success. The patient was placed under the influence of chloroform and a long probe pointed knife passed into the uterine cavity, using the finger as a guide; two incisions were then made to the depth of an inch into the body of the tumor, extending from the fundus uteri to the internal os, and meeting in a V shape. The tumor creaked under the knife like cartilage; slight hemorrhage ensued and was easily checked.

Nothing of note occurred until the third day, when the patient became slightly feverish and complained of a sensation of heat in the pelvis. In a day or two a sero-purulent discharge appeared, and soon shreds of fibrous tissue and "pieces," some of which were as large

as a walnut, commenced to come away through the now easily dilated os. Injections of chlorinated soda and warm water were ordered; a copious discharge continued for two weeks, and at the end of a month the patient was discharged, the uterine tumor having disappeared, and she rapidly regaining strength and health.

East Saginaw, Sept. 10th, 1878.

—:O:—

Miscellaneous.

Effects of Medicine in Small Doses.

Read before the Section on the Practice of Medicine, American Medical Association,
By JOHN MORRIS, M. D., of Baltimore, Md.

We have been for years past gradually lessening the doses of medicine that we administer to our patients. A lesson has been furnished us by homœopathy, however irrational it may be, as far as the matter of giving less medicine is concerned, and many of us who have studied the effects of remedies in different doses have discovered that very small quantities will produce very striking results. The experiment of giving small doses can be safely tried in nearly all the cases of disease which we are called on to treat. Practically, as some writer suggests, these diseases may be divided into three forms.

1. Those that recover by natural means, that is, under the influence of time, rest and abstinence.

2. Those that no treatment can benefit, it matters not how scientific or rational it may be.

3. Those that can be benefitted by judicious treatment, in the cure of which the best possible judgment must be exercised, not only to save life, but to avert evil results.

It is only in diseases of the last named class that remedies can be usefully employed, and the deductions embraced in this paper are based on the results obtained from their administration in these cases.

Before proceeding to discuss individual remedies, we beg to state that we entirely agree with Sir Edward Blaine, in the opinion that remedies are relative agents, and that their virtues cannot be fairly essayed or beneficially ascertained by trying their effects on sound subjects, and that morbid conditions are actually necessary to test their true value. And further, we desire it to be understood that

all the inferences contained in this paper are the result of our own clinical experience.

We will now proceed to examine into the effects of

CALOMEL.

When we first commenced the practice of medicine, more than thirty years ago, it was the custom of practitioners generally to prescribe calomel in large quantities; indeed, in the western and southwestern States of the Union, it was frequently administered in teaspoonful doses. Calomel given in this way does not, as a rule, cause salivation; for the reason that very little of it is absorbed. As in the case of large doses of iron and bismuth, as we shall hereafter show, the greater part of it is carried off by the bowels. Calomel will, however, by its very weight, act mechanically, and in this way will frequently arrest obstinate bilious vomiting, when all other remedies have failed. It is a very remarkable circumstance, too, that it will, in very minute doses, control the persistent vomiting of pregnancy; indeed, I know no remedy so efficient in this condition as one-twelfth of a grain of this chemical given three times daily, for a period of a week, or ten days. No enlightened medical man, at this day, prescribes calomel simply as a purgative. If administered at all, it is given to procure its well known alterative effects, or its action on the liver through the influence it exercises on the duodenum. In our own practice we have found no agent so prompt and so specific in its action on the mucous membrane as calomel in small doses. This is peculiarly evident in diseases of the alimentary tract in children. The administration of mercury is never carried, in our day, we believe, to the point of actual salivation. All that is deemed necessary is to have the system thoroughly influenced by the remedy, as evidenced by the breath and tenderness of the gums, and this is best accomplished by one-grain doses given three times daily, in combination with opium. As an alternative, very small quantities are undoubtedly the most efficacious. Plummer's pills, than which no better remedy can be given in tertiary syphilis and chronic rheumatism of a syphilitic character, contain but a half-grain of calomel each. The pill of the British Pharmacopœia is still weaker. The bichloride of mercury, too, in small quantities, exercises a remarkable influence over affections of the mucous surfaces. Ringland has called attention to its potency in dysentery.

No one who has had any experience can be in doubt as to the power of calomel in the treatment of disease. To secure, however, its just and true influence, it must be administered with great care, and in small doses. Unfortunately it is too frequently given empirically, and without any accurate knowledge as to its effects. It is truly the great searcher of the human system. There is no secretion that it does not stimulate and promote; the mucous surfaces, the liver, the kidneys, the skin, the glandular apparatus, and

every part of the body is reached by it. That it has fallen into disrepute as a remedy, in the last quarter of a century, there is no doubt. This, we believe, is owing entirely to its use in large and unnecessary quantities. In safe hands and in small doses it still is, as it will ever be, a most valuable agent. Headland says that very minute doses can be given in debility, and even in scrofula, in which case it acts as a tonic by stimulating the functions of the liver. He also recommends the administration of very small portions of the bichlorate of mercury in chronic syphilitic affections, if we wish to secure the special blood action deemed necessary to destroy the poison in this disease. We entirely concur with him in this opinion.

IRON.

Iron is, perhaps, the most popular remedy of the day. It is administered in nearly every form of disease, to all classes of people, and for every variety of trouble in which anæmia is supposed to hold a place. This indiscriminate prescription of iron has grown up in the last few years, and surely needs some correction. The doses given are entirely too large, and unnecessarily tax the digestive functions. This is apparent from the fullness about the head frequently caused by its use. But a very small portion can be absorbed, and this only by the aid of the acid of the stomach; and if large doses be given, the greater part, if it act at all, must act mechanically, after the manner of bismuth; but the presumption is that it does not act at all, and is carried off as so much waste material, through the intestines. This is shown by the character of the stools. Iron is not truly a tonic; it is merely a restorative. Even in some cases of anæmia it is not a restorative, save in the very smallest quantities. This is owing to the system being so debilitated that it is incapable of assimilating the remedy, and carrying it to its true destination. The tincture of the sesquichloride of iron is decidedly the best preparation we have in liquid form, when given in proper doses. The muriatic acid adds greatly to its efficacy, by its tonic and diuretic effects, apart from the power this acid has of rendering the metal more soluble. Sulphate of iron in large doses is an irritant, but in small quantities proves one of the most certain and powerful of the preparations of this metal. In administering iron it should be borne in mind that it is not a catalytic agent, and can be only useful to the extent of its absorption into the blood, and its action on that fluid. Dialysed iron, which is a hydrate of iron containing no acid, will, no doubt, in the future, be the only form employed, on account of its being readily absorbed, and its freedom from the bad effects of all preparations of this mineral. Although a strong solution, it possesses no unpleasant taste; does not produce constipation, nor disturb the digestive powers. Its discovery we esteem a great boon indeed.

QUININE.

Quinine is, perhaps, the most potent and unerring of all our remedies, though its precise mode of action does not appear to be thoroughly understood. Like calomel, this chemical has been, and is still administered in immense doses in the southwestern and western States of this country. This we believe to be a very bad and dangerous practice. In ordinary cases of remittent and intermittent fever, not of a congestive character, doses of two or three grains, repeated every two hours, are sufficient. A toxic dose of twenty or thirty grains may forestall an attack of chill and fever, but the reaction that consequently follows leaves the nervous system in a state of depression, and produces a train of very unpleasant symptoms. We are convinced that the continued use of quinine in very small doses, for a number of days, or even weeks, or months, if deemed necessary, will be more likely to effect a permanent cure in cases of malarial fever than a large quantity given in one or two portions. In severe neuralgias large doses of quinine are well tolerated, especially if given before the expected time of attack. In these cases the administration of twenty or thirty grains, by causing cinchonism, appears to more promptly and effectually break up the chain of nervous trouble than the same quantity given in divided doses. In the very aggravated forms of pyrexia, too, quinine may be given in large quantities without the usual bad effects following its administration. The great administration of small doses of quinine is that they can be given to patients in high fever, without causing irritability of the stomach or adding to the general excitement of the system.

ALCOHOL.

Alcohol, too, like quinine, is given in too large doses. A small portion administered every hour more efficiently balances the nervous system, and brings about effervescence by lowering the temperature, than a large amount given at a single dose. The great evil of giving alcohol freely is, that after its influence passes off there is a state of prostration left which compels its continuance or the substitution of some other drug. Alcohol given in small doses acts as a temporary stimulant without producing any secondary sedative influence. In large doses its action is entirely narcotic; a fact that is apparently overlooked by many practitioners, who appear to be wholly ignorant of its physiological effects. As a catalytic agent in cases of poison from the bite of reptiles, very large quantities may be given with impunity, and also in fevers dependent upon the presence of blood poison in the system. In all other instances small doses, given at proper intervals and with due regard to the temperament of the patient, are not only the safest but the most effectual.

DIGITALIS.

The action of digitalis is not always appreciated by those prescribing it. In large doses it is an exceedingly unsafe remedy, save

in delirium tremens and other allied disorders. It irritates the stomach and produces vomiting. This action is independent of its depressing power on the heart, which is produced by the influence it exercises over the functions of the vagus nerve. In small doses, say fifteen or twenty drops of the tincture, digitalis is one of the best cardiac tonics we possess; and in the same quantity it acts most efficiently in those cases of dropsy which result from obstruction of the cardiac circulation. Its depressing power should be always borne in mind and guarded against. In Great Britain half-ounce doses of the tincture are administered, with advantage, in cases of mania-a-potu, but an abnormal condition of the nervous system exists in this disease, which requires enormous quantities of all remedies to produce sedation. The true office of digitalis is that of cardiac tonic, and its prescription in future will be confined to cases of heart trouble dependent upon obstruction of the circulatory system. In view of this fact its well known efficacy in combination with calomel and squills can be readily understood. Its depressing and irritant effects in large doses interfere with, if not totally destroy, its power as a remedial agent.

TARTARIZED ANTIMONY.

Tartarized antimony is a valuable agent which has fallen greatly into disuse of late years. Administered in small doses its action is most marked and beneficent. Apart from its catalytic effect in the blood, it acts as a sedative, diaphoretic and expectorant. To produce its true power, it must, according to Lænnec, be absorbed in the blood, and this can only be brought about by the administration of minimum doses. Its efficacy in small doses, as an adjunct to purgative remedies, through its power of relaxing the muscular fibre of the intestines, is very generally known. At one time tartarized antimony entered into the composition of every febrifuge and expectorant mixture, but owing to its being prescribed in too large potions, and consequently producing great vital depression, it lost character as medical agent. This loss of character was, perhaps, also partly due to the great revulsion that has taken place in the practice of medicine in the last quarter of a century. The abandonment of tartarized antimony we conceive to be a very great error. We prescribe it daily, in very small doses, with the happiest results, and believe, when properly given, it possesses special merits. In disregarding its use the profession, in our judgment, has lost one of its most useful remedies.

IPECAC.

The effects of ipecac on the economy are very similar to those of antimony, save that it does not act on the blood, and therefore can not be ranked as an antiphlogistic. As a neurotic, diaphoretic and expectorant, its power is unmistakable. Its influence on the mucous membrane, in minute doses, is most interesting. We have

seen cases of persistent vomiting, which had continued for days, arrested by small quantities of this drug, all other means having failed. Very large doses of ipecac have been suggested recently in dysentery, and its use in this way, if we are to believe the journals, has been very successful. We have had no personal experience in this matter, but we can readily understand in what manner nauseating or emetic doses of ipecacuanha might, by their relaxing effect on the whole system, influence the rectum itself. Small quantities of ipecac, in combination with opium, have almost a specific action in dysentery, particularly if they follow the administration of a saline aperient. In no form is the potency of small doses of ipecac so apparent as in the troche or lozenge, where its specific action on the mucous surface of the throat and bronchi, becomes at once evident.

ALOES.

Aloes is another drug not prescribed with sufficient caution. Very small quantities of Barbadoes aloes, particularly when administered with an alkali or some vegetable extract, will act as a gentle aperient. Larger doses, as given in the olden time, are drastic in their action, and leave very disagreeable after results. A striking peculiarity in the action of this cathartic, not generally known, is, that an increase of the quantity given beyond a median dose is not attended by a corresponding increase of effect. Three grains of Barbadoes aloes, made into a pill with half a grain of nux vomica and a grain or two of Castile soap, will, if taken after dinner or before going to bed, produce a gentle daily movement of the bowels without griping or other unpleasant consequences. In these cases the action of aloes is due to the power it possesses of slightly stimulating the stomach. Good rhubarb, too, prescribed in the same manner and quantity, will produce a like result. These are our usual prescriptions for persons of sedentary habits suffering from constipation. Rhubarb is not as good an agent as aloes, for the reason that it possesses astringent qualities, and its use is often followed by a torpid condition of the bowels. Rhubarb is tonic, astringent or aperient, according to the manner and quantity in which it is prescribed.

OPIUM.

Opium is the next remedy the action of which is to be considered. The indications for its administration are as follows: pain, muscular spasms, insomnia and nervous excitation. In small doses opium acts as a stimulant and sedative; in large doses as a narcotic. Small doses frequently given, in cases of insomnia, are much better, owing to their accumulative power, than larger ones which stimulate and produce a condition of restlessness and excitement. Save for the relief of actual pain, opium should be prescribed very cautiously, for the reason that it exercises so great an influence by arresting the secretions, and thus interfering with all the processes

of life. It is only necessary to administer an eighth or a quarter of a grain to produce its peculiar action on the skin and mucous membrane. This quantity can be taken without any apparent disturbance of the economy. Opium, like quinine and alcohol, may be given in exceptional cases in large portions. Its unpleasant effects, we may here remark, when thus prescribed, such as constipation, nausea, headache, etc., may be greatly modified by its combination with belladonna or hydrate of chloral. Opium in very minute doses, combined with ipecac, proves one of our best expectorant remedies. Administered either internally or in the form of troches, it stimulates instead of arresting the mucous secretions of the air passages.

Unfortunately the true power of opium is not generally understood, and it is therefore frequently administered unwisely. Its normal influence is exercised over the nervous system. It produces no change in the blood. Its effects occur immediately on absorption, and in this we believe it stands alone among our remedies. To secure this peculiar effect it must be given in minute portions, as narcotism, in the slightest degree, interferes with all its beneficent influences.

GELSEMIUM.

Gelsemium is a much abused agent, owing to a want of knowledge of its therapeutic properties. In England, however, we are glad to know a thoroughly scientific investigation has been entered into, and we may in the future expect a wiser prescription of it, based on an accurate acquaintance with its qualities as a remedy. In this country it is given by many practitioners in unnecessarily large doses, and frequently, instead of producing the desired effect on the capillaries, causes a toxic condition, very agreeable, and sometimes alarming. As an antiperiodic, it acts in a manner similar to quinine. The after effects of both, if large doses be given, are poisonous, cinchonism being produced in one case, and narcotism in the other. Gelsemium, however, has to be much further tried before it can be classed as a special agent.

SQUILL.

Squill, in small doses, acts as a sedative, though it is never, we believe, given to exercise this special influence. Its power as a diuretic and expectorant is generally recognized, but it is not prescribed in this country to the same extent that it is in Great Britain. Given in doses not exceeding one or two grains, it is irritant in its effects, and sometimes proves emetic.

ERGOT.

Ergot is a remedy that is prescribed very indiscriminately. Large doses should only be given in cases of hemorrhage of the uterus, where its specific action on that organ is speedily desired.

Its influence over the capillaries is best secured by small quantities given at intervals. This remedy, too, like many others, is accumulative in its action.

Arsenic, aconite, belladonna and iodide of potassium, are also remedies the action of which we would be glad to discuss, but the limits we have marked out for this paper preclude our doing so at this time. Without attempting, however, an analysis of their particular qualities, we venture the opinion that their true physiological effect can only be obtained by the administration of very moderate, or even minute doses.

Before concluding, it may not be out of place to state that the action of many remedies is greatly modified or increased by combination with other agents. When we find combinations in nature producing remedial or curative effects, the elements entering into them are always small in quantity. What more agreeable or effectual remedies have we than the natural waters found in the springs in different parts of the world; and yet how small a quantity of the various salts is discovered in these waters by analysis. The same may be said of sea air, than which no more potent influence can be named. Would it not be well for us to take a lesson from nature in this, as in many other matters. It would be well to bear in mind that there are a number of substances the efficacy of which is increased by admixture, and one or two the action of which is qualified by combination. The aperient effect of certain drugs is augmented by the addition of henbane, belladonna and nux vomica. The nausea and depression following the use of morphia, as we before mentioned, are almost entirely obviated by combining it with hydrate of chloral. Opium in very small quantities prevents the griping of many cathartic remedies, without lessening their potency. In giving large doses of calomel, salivation is prevented if this mineral be mixed with bicarbonate of soda or chlorate of potash. This last combination does not appear to be a chemical one, or *scientific*, at first glance, but I am assured by capable chemists that no bad effects result from its use, and that a chloride of mercury is not really formed. Iodide of potassium supplements treatment by mercury, and in those cases where there exists a lingering of the poison, it appears most beneficial. The emetic effects of tartrate of antimony are counteracted by its admixture with opium. It was formerly largely given in this way in cases of delirium tremens, and is still used in Ireland in protracted labor due to rigidity of the os uteri. Trituration, too, may be mentioned as a means to increase the power of medicines. This is a means very little understood. There are many other combinations modifying the action of medicinal agents, but they are no doubt familiar to you all. Our only purpose at this time is to call the notice of the profession to the efficacy of small doses of certain unmistakable remedies in daily use, and to invoke a greater watchful-

ness in the administration of drugs, as well as closer attention to their effects when given in large or small quantities.

DEDUCTIONS.

1. That the true physiological effect of remedies may best be obtained by the administration of small doses frequently repeated.
2. That medicines thus given are accumulative in their operation.
3. That the effect of remedies is greatly increased by combination, the manner of preparation, the time and mode of administration, etc.
4. That large doses of medicine frequently act as irritants; that they produce an abnormal state of the blood, as is evidenced by such conditions as narcotism, alcoholism, iodism, ergotism, bromidism, etc.
5. That more special attention should be given at the bedside, to the influence of remedial agents, to the end that a greater certainty may be exercised in their prescription.—*Med. and Surg. Reporter.*

—————:O:—————

Quarantine.

By WILLIAM BAILEY, M. D., Prof. Practice of Medicine, Hospital Medical College.
Read before the Medico-Chirurgical Society.

The question of pestilential diseases is one of paramount importance, and its consideration in view of our relations to the South is now exceedingly apropos. It is not my desire to occupy the time of the society with unprofitable disputation. I wish to offer a few thoughts upon subjects out of which is being developed a policy ruinous to our Southern neighbors, both as to life and commerce.

Quarantine should never be established unless it be to protect us from diseases unquestionably contagious, and even then it is of doubtful propriety; otherwise it is a disgrace to the people adopting it. However, when quarantine is proper, then it may be held responsible for all legitimate deductions therefrom. If it is established, it ought to be of the strictest sort, else it is of no avail. Let us illustrate some of its effects: St. Louis, Cincinnati, and Louisville establish a strict quarantine as against New Orleans. Now, admitting this to be proper under the first law of nature, it holds good with additional force that Cairo, Memphis, and Vicksburg shall do the same thing. If these, then the smaller cities and towns adjacent shall protect themselves, till the parishes immediately around may prohibit any intercourse with the infected city. The consequence is legitimate that the citizens of New Orleans must be kept within its corporate limits, and it may be that the

denizens of its purlieus of filth shall be compelled to remain in their haunts anticipating even the tortures of the condemned.

The consequences of legitimate quarantine when thus strictly enforced become repulsive to our better natures, tending to degrade our philanthropy by causing us to ignore those obligations that are imposed by the brotherhood of man. However, I shall not argue against quarantine from these considerations alone, but likewise from my convictions that none of these so-called pestilential diseases are in the slightest degree contagious. In the list of these are included cholera, plague, and yellow fever. Only in the last century England embraced in the list against which quarantine was to be established, in addition to these, typhus, jail, hospital, and ship fevers, dysentery, and even scurvy. This day places restrictions upon the first three alone.

It may be interesting to inquire into the history of quarantine. You will at once admit that it must result of necessity from convictions of the contagious nature of the affection. The curious student of medical literature will be interested to know that silence prevails as regards the contagious nature of these pestilential diseases till the year 1547, when it was advanced by Fracastorius in order to accomplish a religious political object, namely, the removal of the Ecumenical Council of Trent to Bologna. This becomes from this date the doctrine of the Christian nations, as none dare oppose himself to the authority of it. From this teaching has sprung the practice of quarantine. We might argue against quarantine because it practically fails to accomplish its object; but if it can be shown that these diseases are not contagious, the necessity for it is removed. We desire to present some general principles alike applicable to all these diseases:

They are all of climatic origin, the specific cause in each case operating through or by means of the atmosphere.

No disease limited by latitude, longitude, or altitude is contagious. No disease, in one instance propagated by contagion, is ever produced in any other way. The opposite of this is likewise true. No disease produced at one time by any other means than by contagion is ever produced by contact.

These diseases are limited to certain districts, never exceeding them, so of necessity there must exist within those districts, and in them alone, the causes of them. They prevail only in certain seasons of the year; so only in certain seasons of the year are the causes of them produced. They are often confined by certain definite lines, and even in cities they may be confined to certain parts of them, and to certain squares, streets, or even houses. They obey all the laws of endemic diseases, and not those of contagious affections. One of the greatest difficulties in the way of investigation in regard to their causation is the fact that the minds of men are already occupied by contagion, and hence this must be maintained, no matter what else fails. I will give you one illustra-

tion of this: A committee of physicians of Moscow in 1771 invented a fumigatory powder as a preventive against the plague. Clothing from pestiferous patients, saturated with sweat, pus, and icherous matter from pestiferous dead bodies were prepared with this powder and worn by twenty convicts for the space of one month without in a single instance causing the disease. The committee, of course, were delighted with their preventive, and a thousand such instances would never have caused even a shadow of a doubt to enter their heads as to infection in the clothing.

If you please, we will now be somewhat more specific, and consider some matters with regard to yellow fever.

So many facts in connection with the history of this disease precludes the possibility of contagion that I am at a loss to know how intelligent men can consider them and remain contagionists. It prevails only in certain latitudes, and by preference in isolated districts where sanitary measures are ignored or neglected. The cause seems to be more operative in the night than in the day time. The cause may be retained in the system for an indefinite time in a latent form, the disease being developed long after the person has been removed from the district in which it was contracted or received. Thousands of cases go to other parts of our country and do not prove nucleus for new development. The endemics as such are invariably cut short by a severe frost; the cases that occur in the district afterward are those who had received the cause before the frost, for new-comers are not affected.

You will readily appreciate from these statements why I am so bitterly opposed to measures of quarantine for the prevention of the spread of disease. Unless you exclude the well as well as the sick there can be no certainty of prevention, for some one may come into your midst in apparent good health, or even submit to quarantine or forty days detention, and then have developed in them the disease. No one could by any possibility detect such a case before its development. We find the world exercised to ascertain if by possibility an infected vessel has arrived upon our shores, not hesitating to believe that the epidemic has been developed from it, and yet not being attracted by the fact that upon a change of temperature the disease suddenly ceases, although fifty thousand cases may exist at the time. All London is agog to account for the introduction of cholera, and finally concludes that the drinking-water is possibly contaminated by the discharges from the bowels of two men sick with the disease, and yet no notice is taken of the fact that in a few weeks the epidemic very suddenly disappears while twenty thousand cases are adding their quantum to further contamination. We find the pestilence that devastated London in 1665, the year preceding the great fire, disappeared in the same way. At that time it was the custom to designate the houses in which the plague existed as we do now for variola, only that there was placed on the door a large red cross with the inscription be-

neath it "Lord have mercy upon us." I suppose they thought this more absolutely essential, inasmuch as they had none one for the other.

I am cognizant that I have presented this subject very imperfectly, but I feel that the question of contagion is the taproot upon which quarantine depends, and believing very fully that contagionists fail utterly to establish their doctrine, I oppose vehemently all such measures of prevention as quarantine.

If it was proper to discuss at any length in this paper the etiology and prophylaxis of these pestilential diseases, I should unhesitatingly say that they obey all the laws of so-called malarial affections. I do not insist that the essential cause is identical with that that produces an ordinary intermittent, but I do mean to say that in my opinion they are all dependent upon vegetable decomposition, moisture, and solar heat, and it is the variation in these three that causes the differences in the manifestations of the malarial affections. Accordingly, as we may vary these factors so will we have an ordinary intermittent, remittent, pernicious fever, cholera, yellow fever, or plague.

Having made this statement of my convictions, you will readily perceive that I think it about as sensible to establish quarantine against intermittent as yellow fever. I believe they are very largely subject to state medicine, and the best thing we can do for our neighbors is to advise them to cease reliance on such questionable measures as quarantine and substitution of one stink for another one, and to rely on sanitary and hygienic measures alone. Cleanliness is healthy as well as being akin to godliness. New Orleans needs again such an administration of its sanitary police affairs as was afforded by General Butler. Whenever either of the factors for production enumerated above is absent, then we can not by any possibility have yellow fever. It is for this reason that cities located upon or near the northern border limits of the yellow-fever zone are scourged only occasionally, and those situated differently have annual visitations. Now, we have not the power to control the factor of solar heat, but we can largely interfere with the concurrence of the events necessary to the production of the poison by cleanliness. With these views all possible circumstances in pestilential history are explained, but under the view of contagion confusion is worse confounded. "If facts do not support their theory, then so much the worse for the facts." If possible remove the sick, but at any rate the well, to a climate in which the disease is not generated. It may possibly be within a few miles or even rods of the seat of pestilence.

All hail to the magnanimous heroism of Holly Springs, the only city in my knowledge that has had enough of the milk of human kindness to do as she would be done by.—*Louisville News.*

EDISON'S NEW EAR TRUMPETS.—The "Scientific American" says that Professor Edison, in his researches on sound, has made many curious experiments, one of the most interesting of which is that of conversing through a distance of $1\frac{1}{2}$ to 2 miles, with no other apparatus than a few paper funnels. These funnels constitute the megaphone, an instrument wonderful both for its simplicity and effectiveness. Such an instrument stands on the balcony of Professor Edison's laboratory. A mile and a half distant there is another instrument exactly like the first one. The two larger funnels are 6 feet 8 inches long, and $27\frac{1}{2}$ inches in diameter at the larger end. These funnels are each provided with a flexible ear tube, the end of which is placed in the ear. The speaking trumpet in the middle does not differ materially from the ordinary ones. It is a little longer and has a larger bell mouth. With this instrument conversation can be readily carried on through a distance of $1\frac{1}{2}$ to 2 miles. A low whisper, uttered without using the speaking trumpet, is distinctly audible at a thousand feet, and walking through grass and weeds may be heard at a much greater distance. —*American Med. Bi-Weekly.*

————:O:————

DIPHTHERIA AND SEWER-GAS.—DR. W. SNIVELY, physician to the Pittsburg (Pa.) Board of Health, lately read a paper on the cause of diphtheria in an outbreak of the disease in Pittsburg during the year 1877. Out of the 853 cases, the total number reported, there 366 deaths. Of these, 457, with 141 deaths, occurred in a particular district of the city in which the sewerage was almost criminally defective—*i. e.*, there was insufficient grade, inadequate diameter of the main at certain points, absence of traps at the street drops, private connection-points and main termini, while the man-holes were tightly covered and there was an utter lack of ventilation. Slaughter-houses near the termini drained their offal and refuse through connections having no traps; and one of the latter emptied directly into an untrapped drop. Previous to last July, diphtheria had prevailed in only an ordinary number of cases. The epidemic set in during July, and raged about five months. During most of this period one main was choked for a distance exceeding 2,000 feet. Two heavy rainfalls occurred in July, two in August. Dr. S. infers from these data that sewer-gas emanations, propagating the disease in the poisoned human system, was the cause of that epidemic. He explains that heavy rains caused choking of the mains, and expulsion of stagnant sewer-gas into the dwellings through the private connection-pipes. He very properly insists that ventilation of the main is of the greatest importance in preventing accumulation of sewer-gas, and its consequences, no matter how well constructed the sewer may otherwise be. Undoubtedly thorough main ventilation is of primary importance.

But 'trapping' and ventilation of the *connection pipes* are of equal moment, when there is danger of heavy rains forcing the gas, which may have been generated, into the dwelling. Sewerage is a subject which has been sadly neglected in 'practice, but we hope that later day experiences, and the valuable advice of our sanitary authorities, may soon bring forth ripe fruit and thus add another triumph to those of preventive medicine.—*The Medical Record*.

—————o:—————

Editorial.

The Yellow Fever Epidemic.

All Newspapers and most Medical Journals are filled with yellow fever reports or articles. The subject is so forced upon the profession and public that it is almost impossible to withhold expression on the subject. Few concise satisfactory facts concerning it have yet been stated; what it is, where it originates, what laws (if any) it observes, how it is propagated, and by what influences it is controlled, does not yet fully appear.

The editor of the *Scientific American* says: "It comes in every case from without; there is no spot in the United States where it is indigenous. Its birth-places are the West Indies, the South American coast, and, possibly Vera Cruz in Mexico. From these countries it invades, almost every summer, our sea-board cities, and occasionally produces a desolation such as words fail to describe. This disease made its first appearance in this country in 1768, and from that time down to 1877 it had visited us seven hundred and forty-one times, spread its ravages to two hundred and twenty-eight cities and towns, and extended to twenty-eight States of the Union, causing sixty-five thousand three hundred and eleven deaths counted—besides the innumerable deaths of which no record was made. Of all these numerous appearances of the disease among us, forty-five per cent. are directly traceable to foreign origin."

Efficient National Quarantine and thorough disinfection are spoken of as our only protection against cholera and yellow fever visitations, and we should all feel a degree of relief, if we could be sure, that in either or both of these we could look for safety.

The question arises, how is it that in some cities the disease prevails most extensively, and proves most fatal, in the best, highest, cleanest, and to all appearance the most hygienically perfect districts of the town or city? Our understanding of hygienic law is pretty severely tested, sometimes by visitations of epidemic disease—our boastings of knowledge in these matters

proving vain. After all it must be hoped that disinfection and quarantine will be able to effect some good.

One word about our internal quarantine. It seems possible to so institute quarantine regulations as to protect the importation of the disease, but when it is imported and spreading terror and dread into all the families of a great city, who at once attempt to flee the town, going in every possible direction, occupying every route of exit, not because they have fever but because they fear they may have it, their friends and neighbors sick or dead, and possibly some of their own families now scarcely able to go with them, it would seem to be quite otherwise. In this condition of distress they attempt to escape the plague, as they have no better name for it. Now can quarantine prevent this stampede to adjoining towns. Are we to stop a gentleman's private carriage containing himself and family, and institute quarantine regulations, can physicians say that the craft is loaded with yellow fever, and must stop; and suppose it is examined and reported free from disease, is it certain that two weeks later, the usual period of incubation having expired, the whole ship's crew and passengers may not develop the plague, can quarantine do any thing in such cases to protect surrounding districts? If Memphis is destroyed, must not the surrounding country also suffer? Quarantine and disinfection, however well directed and enforced, do not make us feel quite safe, and there is probably a "great deal of danger in being safe" or sure in this matter of epidemic disease.

If towns and cities will not listen to repeated warning and neglect all sanitary law, (if sanitary science has really reached any law,) then visitations of "the plague" in some form is to be expected.

Continuous high temperature is believed to induce yellow fever in cities prepared for it by hygienic neglect. Dr. Comstock, of St. Louis, speaks of it as essential to the epidemic form of the disease.

At a distance from the fearful destruction of life and commercial loss already incurred, and after reading what is said about it by most careful observers, the conclusion is irresistible, that as Physicians, Hygienists, Sanitarians, &c., &c., we are yet very unsettled and ignorant as to all the essentials concerned in the origin and spread of yellow fever. It yet seems to be a subject open for and demanding investigation at this very opportune time when all are so much interested in every thing connected with yellow fever and epidemic disease generally.

We subjoin a quotation from Dr. Bell, editor of the *Sanitarian*, containing valuable and suggestive facts on this subject:

That yellow fever has not prevailed in New York and Brooklyn, and several other cities north of its more usual latitudes, the past summer, is not by any means due to certain acts of inhumanity which have been committed against the sick afflicted with it, and the well flying from it, but to the good fortune of these cities in that while they tolerate the local conditions, they have not been subject to a continuous high temperature for several weeks—above seventy-five degrees—also necessary to it. But the present exemption

is no guaranty for the future. So long as people tolerate the local conditions, they continue to risk the recurrence of an exceptional season of high temperature with results the same as have been in the past.

Yellow fever is eminently portable to places of like conditions as those in which it originates by means of *fomites*—clothing, books, dunnage, certain articles of merchandise, ballast; and, above all, by filthy vessels—packed up or closed in, in the places where and when the disease is prevailing; hence the necessity of quarantine of such materials until they are disinfected. But inasmuch as the disease is *not personally contagious*—is not communicable from one person to another—persons should in all cases be allowed their freedom, no matter what the degree of exposure to which they have been subject. And during the prevalence of an epidemic in any place, everybody should be encouraged and aided, as far as practicable, to escape from it as the surest means of safety.

The sick with yellow fever should be cared for under such circumstances as will most conduce to their recovery; and as they are never dangerous to the surroundings, *cannot* give the disease to any other person or thing, to remove such sick persons from healthy places, or take them from the care of their friends to out-of-the-way places, or, as has been practised in New York and Brooklyn, take them to the Quarantine Hospital, is alike calculated to render such cases more dangerous, and to alarm the public on a false issue.

In illustration of its non-contagiousness: during the naval service in the Mexican war the writer messed and slept in a room of about 8,000 cubic feet capacity, but sufficiently open for the wind to blow through it, with from five to thirteen yellow fever patients for his companions for several weeks; and in an adjoining room belonging to the same building (the Salmadino Hospital, wholly built of unplanned pine boards, on an island near Vera Cruz), with an open door-way between, containing at no time less than forty, and for a large portion of the time over a hundred other cases, *without taking the disease*. But subsequently, at the end of one week spent on board an infected ship, he was stricken with it.

Again: at Fort Hamilton, in 1856, while attending Dr. Joseph H. Baily, of the United States Army, with yellow fever, and fearing the worst results from a relapse which overtook him in that then badly infected place, the writer had him carefully transferred on a bed in an easy wagon to the family of a brother, and the nursing care of his devoted wife, in Fourteenth street, New York, for which the public was none the wiser nor the worse. Dr. Baily and those who took care of him still live to rejoice over the result. It is almost needless to add nobody was made sick by the "risk."

In the New York Quarantine, while in charge of the yellow fever hospital ship—in the lower Bay, in 1862 and with yellow fever patients on board—the writer took his wife and young children on board for aeration, which they much enjoyed. And there he also permitted the devoted wife of a naval officer to watch over and bathe the brow of her husband during several days while he was *in extremis* with black vomit, to hold his hand at death, and to attend the burial. Thence she returned for a few days to the Mansion House, Brooklyn; and to her home. Nothing but good ever came of it.

Of good riddance, and the effect of freedom from an infected place: During the same service in Quarantine, about the middle of September, the United States steamer "Delaware," belonging to the Quartermaster's Department, arrived from Port Royal with over one hundred of crew and invalid soldiers on board, infected with yellow fever. Three died on the voyage; three cases were sent to the Floating Hospital; and the great danger of forty-six invalid soldiers, and more than as many more of other persons who had not had the disease, requiring immediate relief, was reported to the Commissioners of Quarantine. Three days having been fruitlessly spent in an effort to charter a hulk to which those well persons might be transferred, to cover the hugaboo period of "incubation," and, meanwhile, from three to seven new cases occurring daily, the writers took the responsibility of having every

person on board, except necessary ship-keepers, washed, and dressed in clean suits, and sent to the Floating Hospital. There he kept them, though in rather close quarters (with due allowance for the sick) for a week, by the end of which time a transfer vessel was obtained, on board which they were placed and kept (not by the advice or authority of the writer) for two weeks longer; but *from the time they were removed from the infected ship "Delaware" not another case occurred among them.* So much for elimination as against development.

—————:O:—————

Protest from Dr. H. R. Storer.

At the annual meeting of the Massachusetts Medical Society the following protest was received by the President and referred to the appropriate committee without reading:

NEWPORT, R. I., June 12, 1878, 9 A. M.

To the President of the Massachusetts Medical Society, now in session at Lowell Institute Hall, Boston.

I had intended to be present to-day in person, but at the last moment my strength has failed. Be kind enough, therefore, to convey to the Society in open meeting my respectful protest against the censure of the Councilors in 1870 for having, as a regular accredited representative of the Gynæcological Society of Boston, presented to the American Medical Association a protest against the unjust discrimination between applicants for fellowship and the consequent harboring of irregular practitioners, then practiced by the Massachusetts Medical Society, due notice of which protest, after an ineffectual attempt to right matters at home, had been given to the Society by me *viva voce*, at the annual meeting in 1869, and subsequently in print in the *Gynaecological Journal*. This is my first opportunity to bring the matter before the Society. In 1871, at the time of the annual meeting, I was absent in California. In 1872 I was dangerously ill. Since then, and solely in consequence, I have been absent in Europe. Though now residing in Rhode Island, it is for my health alone, and I have refused to apply for, or to accept, membership in its State Society until the stigma that the Councilors have attempted to attach to me shall have been removed.

I now appeal from the Councilors to the Fellows of the Society at large.

HORATIO R. STORER.

Fellow of the Massachusetts Medical Society in full standing.

—————:O:—————

THE POPULAR SCIENCE MONTHLY for October will be issued about September 20th. This number will open with an illustrated popular article by Prof. J. S. Newberry, of Columbia College, on "The Geological History of New York Island and Harbor," and will also contain articles by Bain, Huxley, Spencer, Kirkwood, Brooks, and other eminent home and foreign writers.

Books Reviewed.

Anatomy: Descriptive and Surgical. By HENRY GRAY, F. R. S., F. R. C. S., and Lecturer on Anatomy at St. George's Hospital Medical School. With Five Hundred and Twenty-two Engravings on Wood. With an introduction on General Anatomy, by T. HOLMES, M. D., Cantab. From the Eighth English edition. To which is added, "Landmarks, Medical and Surgical." By LUTHER HOLDEN, F. R. C. S. Philadelphia: H. C. Lea. Svo. pp. 983.

Eight years have elapsed since the former American edition of this standard work was issued. Thirty-one pages have been added to the main part of this text, considerable having been done in bringing portions relating to minute anatomy up to date. The section on the Kidney has been re-written and now presents a very clear account of the minute anatomy of that organ. The histology of the liver, of the lining membrane of the alimentary canal, of the retina, of the thyroid and of the thymus glands has been revised. The spiral canal of the cochlia, in the internal ear, is described anew and a very much needed illustration of a longitudinal section of the brain is introduced. Scarcely any change has been made in the principal parts of the work which have been so good as to be almost beyond criticism. In some new remarks as to the function of the shoulder and the hip joints, we think that the use of the coraco-humeral ligament in holding the joint surfaces in apposition and limiting eversion should not have been overlooked; likewise the function of the outer branch of the ilio-femoral or Y ligament of Bigelow, in limiting eversion of the straightened thigh, and of a thickened portion of the capsular ligament posteriorly, and just beneath the pyriformis muscle, in limiting eversion of the extended limb, as well as adduction when flexed. Again flexion of the thigh is limited in our opinion not by meeting together of the thigh and body but by the three adductor muscles, which limit flexion and especially when circumduction outwards of the flexed thigh is made.

It is to be noticed that the author speaks with more positiveness in the matter of power of motion in the first and second phalanges of the fingers, by means of the lumbricales and interossei, which is of importance in amputations of the phalanges, where disabling of the long flexor and extensor has been erroneously supposed by many writers to cause loss of power of the first phalanx of the fingers and render amputation above it necessary. We should like to have had the basal ganglia of the cerebrum, the nucleus candatus and dentatus mentioned, or their situation described. There would be convenience in having the etymology of very many of the words of for-

eign derivation used in naming the muscles and other parts given in parentheses. Holden's "Landmarks," giving clear and brief histological descriptions of practical points, has been added to the new volume. This is of great value and will be appreciated by all students. Gray's Anatomy is now the recognised class-book in Anatomy, having superseded all former works of similar scope, and is truly the *first* book for the student of medicine.

A NEW ENTERPRISE.—Wood's Library of Standard Medical Authors. For many years past Wm. Wood & Co., have had under consideration the feasibility of reproducing books, especially of foreign authors, in good style, and yet at prices greatly less than heretofore attempted. The high cost of labor, and of all the materials used in the manufacture of books, has been an insuperable obstacle. Even now it would be impossible to carry out systematically any such idea if the ordinary methods of trade were depended upon.

It is believed that the medical profession will welcome and generously sustain any well-directed effort of such character, and the following scheme has been prepared with much care, and is respectfully submitted for approval and support. They announce that in January, 1879, they will begin the publication of Medical Books by the most distinguished modern and standard authors, in monthly volumes of from 200 to 300 pages and upwards, handsomely and strongly bound, at the merely nominal price of One Dollar each. Estimating from the regular prices of the books so far selected for publication in 1879, subscribers to this Library will obtain about Fifty Dollars' worth of Medical Books for Twelve Dollars. Wood engravings and plates will be freely used whenever required. With the type and size of page adopted, it will frequently be possible to reproduce in one of these monthly volumes, an ordinary book of 400 to 500 pages, and costing from \$4.00 to \$6.00. They offer the following terms of sale: They say, "it would be impossible to publish books upon this plan without a very large assured sale for each volume. Wood's Library of Standard Medical Authors will, therefore, be sold by subscription only at Twelve Dollars a year. Payable invariably in advance. Subscriptions must be for a complete year. The volumes of this Library will not be sold separately."

:O:

Books and Pamphlets Received.

Barnes on Diseases of Women. Henry C. Lea. T. H. Butler.
 Antagonism of Medicines. By J. Milner Fothergill. Henry C. Lea. T. H. Butler.

Quantitative Analysis. By Alexander Classen and Edgar F. Smith. Henry C. Lea. T. H. Butler.

Proceedings of the Medical Society of the County of Kings.

Conspectus of the different forms of Phthisis. By Roswell Park, A. M., M. D.

College of Physicians and Surgeons. New York. Seventy-first Annual Catalogue.

Transactions of the Twenty-fifth Annual Meeting of the Medical Society of the State of North Carolina.

Batley's Operation. Three fatal cases with some remarks upon the indications for the operation. By George J. Engelmann

Ninth Annual Announcement of the Woman's Hospital Medical College, Chicago.

Prospectus of the New York College of Pharmacy.

Henry Gibbons, Sr., M. D., on Feticide.

Removal of Naso-Pharyngeal Polypus by temporary depression of both upper Jaws. By L. McLane Tiffany.

Report on the Health of Children in the Oneida Community. By T. R. Noyes, M. D.

The Pith of the dried Corn Stalk as a Uterine tent. By W. T. Goldsmith, M. D.

Medico-Legal Evidence Relating to the Detection of Human Blood. By Joseph Jones, M. D.

Berberidaceæ, the Botanical description, commercial history, medical properties and pharmaceutical preparations, by C. G. and J. U. Lloyd. Cincinnati. 16 pages.

A Treatise on Milk, and Henri Nestle's Milk Food, for the earliest period of Infancy, and in later years, by H. Lebert, Medical Privy Councillor and Professor. Page 38.

Cholecystotomy for the removal of Gall Stones in Dropsy of the Gall, Bladder, by J. Marion Sims, M. D. London: T. Richards, 37 Great Queen St. 1878. pp. 20.

Upon the Treatment of Strumous Disease, by what may be called the Sol-fatara method, by Horatio R. Storer, M. D. Newport, R. I.

Annual Reports of the Supervising Surgeon General of the Marine Hospital Service of the United States, for the fiscal years, 1876 and 1877. John M. Woodworth, M. D.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

NOVEMBER, 1878.

NO. 4.

Original Communications.

—:O:—

ART. I.—Scirrhus of the Pancreas—Cases in Practice.—By J. F. WAID, M. D.

Recognizing the fact that any disease of the pancreas is difficult of diagnosis, I report the following, thinking they may be of interest to others as they have been to me:

CASE 1.—Mr. M——, aged 48, married, by occupation a lumberman. Came to me in the summer of 1870; complained of pain in stomach, pain aggravated if fatty food was taken. Prescribed counter-irritation over epigastrium, internally bismuth and tonics; with these he retired. Again in 1871 he returned, the pain more acute; seemed neuralgic in character. At times entirely relieved, then paroxysms of very acute pain. Diagnosed neuralgia of stomach. Prof. Gross being consulted made the same diagnosis. Treatment gave relief. Progressive emaciation and loss of strength, with indigestion, followed. Not until within two months of his death was the diagnosis of cancer made out. At this time there was a small tumor in the region of the pylorus, yet there was but little vomiting. Death took place in March of 1872. The autopsy revealed a scirrhus deposit along the greater curvature of the stomach.

The liver was healthy, except one or two small nodules in the left lobe. The gall bladder was distended with bile. The head of the pancreas was covered with a scirrhus tumor measuring three inches in diameter, pressing upon the ductus communis cholidochus and obliterating the pancreatic duct. It was the opinion of my professional brethren present that the pancreatic tumor was the primary deposit, being more extensive, etc., than the others.

CASE 2.—Mr. O. M——, aged about 50, married, by occupation a farmer. Had been an invalid several years; had dyspepsia; was relieved by tonics and pepsin; was not able to digest fatty food of any kind. I was called to see him in the Fall of 1875; found him suffering pain in the region of the pylorus, bright yellowness of conjunctiva and skin; pulse not accelerated. Complained of giddiness and some nausea. Diagnosed jaundice from obstruction. Treatment gave little relief; stools remained clay-colored until the day he died. Emaciation progressed rapidly, though food was taken in large quantities. Fatty dejections and very fetid. Patient died in March, 1876. Some twelve hours before death diarrhœa came on; after suffering severe pain he had two stools of the color of bile, but darker. The dejections were not fetid. The *post mortem* examination revealed a tumor over three inches in diameter covering the head of the pancreas and obliterating the pancreatic and bile ducts. The tumor had adhered to the duodenum and covered more than half its circumference for a length of two and one-half inches. A channel or duct, large enough to admit the index finger, had ulcerated from the dilated bile duct above through the tumor to the duodenum below. Through this the bile had undoubtedly discharged before death as the gall bladder, though very much dilated, was not distended. The stomach was healthy. The liver seemed comparatively healthy, except one or two whitish-yellow patches (very small). We were unable to determine their character, though presumably the same as the primary tumor, which was well marked scirrhus.

CASE 3.—Mrs. C——, sister of case 1st, aged 48, married. Clinical history about the same as case 1st; cancerous cachexia well marked. About two months before death persistent vomiting set in. Autopsy revealed the same cancerous growth surrounding the

head of pancreas, but not obliterating the choleric duct; also scirrhus of the pylorus very nearly closing the orifice.

CASE 4.—Mr, W——, aged 60, married; by occupation a farmer. Was called to see him in March, 1878; found pulse sixty per minute, cold extremities, yellowness of conjunctiva, stools were clay-colored and very offensive; appetite gone and bowels constipated. I diagnosed jaundice from obstruction, and treated him accordingly, without effect except to improve the appetite and digestion. In June I gave my diagnosis as “the obstruction is probably cancerous,” though there was as yet but little acute pain, the patient not speaking of it unless asked. The stools were throughout of a clay color, as they had been for two months previous to my visiting him. His death occurred in August, 1878. The autopsy revealed cancerous deposit throughout the liver, though in small nodes, except near the outer border of the right lobe. The liver weighed seven pounds and two ounces. The gall bladder was very much distended with bile. The duct was dilated to near the junction with the pancreatic duct, so that when flattened it measured one inch and a half in width. The head of the pancreas was covered by a mass, evidently scirrhus in character, three inches in diameter and involving also the duodenum. The symptoms, common to the foregoing case: first, pain in the epigastric region, extending downward toward the umbilicus. Second, progressive emaciation. Third, the presence of a tumor, though this was often difficult to distinguish with certainty. Fourth, on pressure the pulsation of the aorta was plainly felt, being communicated through the tumor to the fungus. Fifth, only occasional acceleration of the pulse. Sixth, cancerous cachexia becomes well marked toward the close of life; also, at this time the character of the pain becomes more diagnostic. But, notwithstanding this, the diagnosis was not easily made out. It was not difficult to find physicians who would encourage a cure even within a month or two of the patient's death.

Now the query: Is not scirrhus of the pancreas a more frequent cause of death than is generally supposed? If it is so, any symptoms which may make the diagnosis more easy and certain, will be of value, as it will prevent patients from being subjected to a worse than useless treatment because of a wrong diagnosis.

ART. II.—Abstract of the Proceedings of the Buffalo Medical Association. Reported by JOSEPH FOWLER, M. D., Secretary, October 1, 1878.

Meeting called to order by the President, Dr. Lothrop. Members in attendance were: Drs. Lothrop, Rochester, Cronyn, Wyckoff, Moody, Hauenstein, Brecht, Howe, Wetmore and Fowler, and by invitation, Dr. Nichols.

Proceedings of August meeting read and approved.

Dr. Rochester reported the following case, and presented the pathological specimen for inspection:

Early in the year 1875, Michael Hayes, aged 28 years, called at his office to consult him concerning an abscess which had recently appeared in the right iliac region. It was painful, circumscribed, hard and accompanied with considerable febrile disturbance. The possibility of it being a hernia or an enlarged gland was excluded. It presented all the appearances of a perityphilitic abscess, and, in his judgment, a proper one for operation. While the patient was in this condition, he invited Dr. J. F. Miner to see him in consultation and to go prepared to operate. When they visited the patient it was found that the painful tumor, so apparent the day before, had entirely disappeared, followed by almost complete cessation of pain. It first occurred to him that there might have been an error in diagnosis, but the patient at once informed him that he was passing fecal matter through his penis, and did so in the presence of both physicians. He remained under observation for about six months, after which he was lost sight of. Dr. Rochester subsequently was informed that he had gone to Bellevue Hospital to be operated upon, but receiving no encouragement returned to Buffalo, and came under the care of Dr. Boardman, of this city. He recently died, and Dr. B. invited him to be present at the *post mortem*. The subject was greatly emaciated, there was no swelling of any part of the abdomen. In the right iliac region the intestines were firmly adherent to each other and adjacent parts. It was difficult to isolate the caput coli. The appendix was firmly attached to the abdominal wall. The prostate gland was considerably hypertrophied, the rectum was on the right side, beneath the abscess and bound to surrounding parts. Upon cut-

ting down into the situation of the abscess, a sack was found containing pus and fæcal matter. There was a communication between it and the appendix vermiformis; also between the abscess and the rectum, and still another into the bladder, and a fourth into the head of the colon, but none into the peritoneal cavity.

The specimen as presented by Dr. Rochester showed portion of the bladder, colon, rectum and appendix in their normal relations to each other. The removal of these parts was accomplished under great difficulties, and he desired to thank Dr. Boardman for the specimen, and the care taken to secure it.

This completes twenty three cases coming under Dr. R.'s observation, six of which recovered—two by spontaneous evacuation, one by operation, and of three it was difficult to decide how. Think an early operation in the case reported might have saved the life of the patient.

Dr. Cronyn said he had seen the man after his return from New York, and his history, as given by himself, agreed with what Dr. Rochester had said. Saw him soon after his return, when he was complaining of colic and had a swelling in the right iliac region, and passing pus through the urethra. It was his opinion that an abscess had formed about the caput coli and opened into the bladder or urethra. He thought it a very curious circumstance, and upon looking up the literature of the subject found only three similar cases reported, all of which were fatal. The propriety of operating for restoration of the fistulous opening was discussed. Thinks it possible that if the abscess had been opened the result might have been otherwise; would recommend operating early, especially as the cases prove fatal in time.

Dr. R. remarked: In some cases it would be madness to operate; when the abscess occurs from external violence there would be greater assurance of success. The Doctor recalled to mind a boy 10 years old, who had been kicked in the right iliac region by another boy, resulting in an abscess in that situation. Death ensued, and it was found that sloughing of the appendix had taken place. He recollected of reading a report of a similar case many years ago which occurred in England.

Under the head of "prevailing diseases," Dr. Rochester said he

believed there were less autumnal disorders prevailing than usual, but an unusual amount of fever called malarial, typhoid and typho-malarial, according to the symptoms presented. In some cases there was a great variation of temperature in the same day. Some of the cases had diarrhœa or epistaxis. The abdomen was not tympanitic, and the tongue did not present the usual appearance characteristic of typhoid fever. Did not think he was warranted in calling the disease typhoid. This form of disease had proved very obstinate in some cases, lasting about three weeks, and liable to relapse, often taking on the form of intermittent fever of a low type. In one case cerebro spinal meningitis was the most alarming symptom. Had seen, also, a number of cases of scarlet fever.

Dr. Wetmore believed there was more miasmatic fever in the city than ever before. Had four cases which he called typho-malarial. There was tenderness of the abdomen and petechial spots. The temperature was variable. One case had a relapse. First treated the disease by giving four grains of quinine every four hours, with small doses of strychnia and arsenic; gave 20 to 30 grains of quinine each day for four days to a child twelve years old, but could not say that it abbreviated the disease.

Dr. Hauenstein said he had seen several cases; one had well marked typhoid symptoms. Epistaxis was profuse, the temperature $102\frac{1}{2}$ to $104\frac{1}{2}^{\circ}$ F. There was no tympanitis, tenderness or diarrhœa. Another case, a girl had very severe menorrhagia with the other symptoms.

Dr. Johnson said he had observed some cases quite similar to those just described. Had seen one case of typhoid fever, and a few cases of scarlet fever which assumed an intermittent form.

Dr. Wyckoff reported having treated a number of cases of fever of the same nature described, one of which terminated fatally. She was very ill for three or four weeks; had delirium, a tympanitic abdomen and high temperature. She improved for a time and then grew worse. At the end of six weeks it seemed as if she would recover, when suddenly vomiting set in and she died in eight hours. Two other cases had phlebetis as a complication. The temperature in all his cases was high and variable, often higher in the morning than in the evening, reaching 104° , F.

Another case had congestion of the lungs and bloody expectoration, was delirious, had epistaxis and temporary loss of voice and hearing.

Dr. Moody said she had seen one case with a temperature of 104° , which improved under the use of four grains of quinine every three hours.

Dr. Cronyn had seen a number of such cases, and was glad to hear Dr. Rochester say the disease was not typhoid fever. Many of them have diarrhœa, but not so obstinate as in typhoid fever. There was a tendency to vomiting, and tenderness over the abdomen, most susceptible near the umbilicus, but no petechial spots. Remission and exacerbation of fever in the same day were remarkable. Think quinine of little value when administered beyond its power to effect a reduction of temperature; he gave most of his patients hydrochloric acid, perhaps a little quinine and dovers powder. Was disposed to give but little medicine, but was careful of nutrition. The delirium was of rather a pleasant nature; his patients were not furious, but saw pleasant sights. There was distention of abdomen in only one case, and a tendency to relapse in all. Did not think typho-malarial a good name to apply to the disease. Thought perhaps the water might have something to do with its production. Three servants who had been drinking from the same well came to his office all presenting like symptoms of typhoid fever.

Dr. Rochester said he attended recently a patient in the eastern part of the city who was suffering from irritation of the bowels and fever, and was informed that there were about forty or fifty persons in the same neighborhood similarly affected. He saw some of the water from the well these people drank, and it was very clear and cool.

Dr. Howe said as the discussion had turned upon our water-supply, he might say that at a recent meeting of the Microscopic Society crystals of uric acid were shown to be in the water of a well, located in the eastern part of the city, and in that of another on Maryland street there were found woolen fiber. This was suggestive as it might be the remains of the bag used to drown the cats.

The application of Dr. Cary was presented and took the usual course.

The Association then adjourned.

ART. III.—Asphalt, where obtained and how used. By * * * M. D.

This question is so often asked by most intelligent citizens as well as by physicians, myself among the number, without being able to give or receive satisfactory answer, that I have tried to obtain from various sources answer to some of these points of inquiry. As I know little of it except what I obtain from others, it will not be expected that I can write anything original expressing the exact facts of the present time in the practical working and use of this substance, but I find some statements which would seem interesting to every one observing the present uses of this article.

Authors say Asphalt or Asphaltum Bitumen, called also mineral pitch, from the Lacus Asphaltes, or Dead Sea, where it was found in ancient times, is a product of the decomposition of vegetable and animal substances. It is usually found of a black or brownish black color, externally not unlike coal, but it varies in consistency from a bright pitchy condition, with sharp fracture, to thick viscid masses of mineral tar. Asphalt melts at or a little below the boiling point of water, and it burns with smoky flame. It is regarded as the ultimate result of a series of changes in organized matter, producing: 1st, Naphtha; 2d, Petroleum; 3d, Mineral Tar; and 4th, Asphalt or hard bitumen. The whole of these substances merge into each other by insensible degrees, so that it is impossible to say at what point mineral tar ends and asphalt begins.

Naphtha, which is the first of the series, is in some localities found flowing out of the earth, as a clear limpid and colorless fluid; it takes up oxygen from the air, becomes brown and thick and is called in this condition petroleum. A combination of evaporation and oxidation transforms it into mineral tar, and still later into asphalt.

Asphaltic deposits exist widely diffused throughout the world and are very variable in composition, and their proximate constituents have not been subjected to a thorough examination. The most remarkable deposit of Asphalt exists in Trinidad, where it forms a lake 99 acres in extent, and of unknown depth, intersected by rivulets of water. On the lake is seen the emission of semi-fluid tar, still soft and viscid, which, by exposure gradually obtains the consistency of the rest of the mass. In addition to the

lake deposit asphalt occurs in the surrounding country in patches or in sheets of considerable size, at one point protruding into the sea, and pieces of asphalt are frequently cast upon the neighboring shore. Asphalt is found also in Cuba, and from Peru a very pure variety of high luster is exported. The asphalt of the Dead Sea is probably a tradition, as very little is found there at the present time. The fountain of Is, on the Euphrates, was the source of supply of ancient Babylon, and still yields asphalt. It occurs in many localities throughout Europe, but not to any considerable extent.

The asphalt beds of the Val de Travers were first discovered and utilized by Eirinnus, a Greek Physician, in 1812, who recommended the material as being "peculiarly suitable for covering all kinds of constructions, to protect wood and stone work against decay, worms and the ravages of time, rendering them almost indestructible even when exposed to wind, wet, and extreme variations of temperature." Dr. Eirinus was aware that asphaltic mortar had been used in the building of ancient Babylon, and he himself succeeded in using it with great success in lining cisterns and walls as a cementing material, and for the flooring of warehouses, &c. After some time it fell into disuse and the quarries of Val de Travers were even forgotten until the year 1832, when this material was again re-introduced. Asphaltic stone soon came to be extensively used in France for pavements and roadways, and for protecting floors and walls from the effects of damp. From France the application of the material for such purposes extended to other countries, and there is now a wide spread demand for asphaltic pavements.

It is to be regretted that the present exact process of laying the asphalt pavement cannot be given. I am not aware that the Company or Companies now laying pavements, have yet given their process to the public, nor am I sure that any secrecy is desired. Possibly the Companies would give it in full if requested to do so, or that it has been published and escaped my notice.

Two principal methods are adopted in laying asphalt pavements, the mastic process, and the hot compressed process, as they are called. The mastic process is essentially this: The bed of the

roadway is prepared with a smooth level foundation of concrete, which must be thoroughly dry before the application of the asphalt. The mastic is prepared for application by heating the asphaltic stone and breaking it into fine pieces which are then melted up with a quantity of mineral tar, to which sand is added. The molten mass is then poured over a section of the prepared concrete to the requisite depth; the surface smoothed, and covered with a fine sand which is pressed into the asphalt.

The other process now extensively used consists in spreading hot powdered asphalt stone on the prepared surface, which is then heavily pressed till it forms a homogeneous elastic coating.

Roadways so prepared are said to be very durable, smooth, noiseless, cleanly, but not adapted to other than level streets, being slippery and more unsafe than ordinary stone pavements.

An artificial asphalt is prepared by boiling up the pitch of gas-tar with chalk and sand, but such a substitute though cheaper, has not the durability of the natural compound. Gas-tar asphalt is also applied for other purposes in which the natural product is used.

Asphalt was used by the ancient Egyptians in their process of embalming. It is the principal ingredient in black Japan varnish. It has also been used for roofing, drain-pipes, water-proof paper and many other purposes.

————:o:————

Miscellaneous.

Paracentesis Thoracis.

By S. LOGAN, M. D., Professor of Anatomy and Clinical Surgery in the University of Louisiana, &c. (Read before the New Orleans Medical and Surgical Association, July 6th, 1878.)

Since Dieulafoy awakened renewed attention to the method of pneumatic aspiration for the removal of fluid accumulations in the tissues and cavities of the body—a plan really first practiced and published by Bowditch, of Boston—and since Trousseau has been so generally read, the question of the proper treatment of hydrothorax, pneumo-hydro-thorax and pro-thorax (or empyema), has

elicited considerable discussion. Nor can we say that definite and generally acknowledged conclusions have yet been reached by the profession.

If we were to listen to the dicta of some of our statistically inclined brethren, whose columns of figures run up into the thousands, we would be obliged to discard all operative procedures and rely exclusively on the *Materia Medica* of the *Therapeutician* and the frequently very clumsy surgery of the *Vis Chirurgica Naturæ*. On the other hand, did we allow ourselves to be guided by statistical deductions of others—notably M. Dieulafoy—we would hardly approach the bedside of a case of pleurisy without an aspirator under our arm.

The most extensive and at the same time the most elaborately arranged statistical tables, which I have examined, are those published in the *British Medical Journal* of November 24th, 1877, in an article from the pen of Dr. Wilson Fox, of University College, London. He first gives us one table, "Showing the Mortality per cent. of all cases of pleurisy in different Hospitals," on the continent as well as in Great Britain. This table includes some 13,000 cases. The mean total mortality he estimates as from 10 to 17 per cent. It must be borne in mind that all these were hospital cases, presumably, therefore, coming from less favorable surroundings. The apparently rather high mortality is probably due to this fact.

Dr. Wilson Fox's second table, comprising 2630 cases, is intended to show the "Relative Mortality of Complicated and Uncomplicated Pleurisy;" the mortality in uncomplicated cases ranging from 3 to 7 per cent., while, if I understand the rather obscure paper, the percentage of deaths in the complicated cases ran up to 36.

In the third table is represented, according to the same compiler, the "results of paracentesis in pleurisy" and the mortality percentage is affirmed to "reach as a mean of operation, to 27 per cent. and only falling to or below 10 per cent. in the hands of observers, the large proportion of whose observations have been confined to serious effusions in the early stage, while in others it has ranged as high as 25 to 45 per cent." But he very appropriately adds: "This high mortality, taken both collectively and also in the experience of individual observers, is undoubtedly due in many instances to the nature and to the severity of the cases and of their complications."

Herein truly resides the difficulty in attempting to reach a satisfactory solution of this subject through the statistical method. The cases of thoracic accumulations present such a vast difference in the nature of the cause producing them, in the character of the fluid, in the circumstances of the subject, before, during and after treatment; in the previous or supervening complications, etc., etc., as to render it impossible to draw safe conclusions even with the most careful analysis of the cases. I will not, therefore, trouble

you with further statistical details and have only given this summary of the statistics collected by Dr. Fox as a fair sample of many others. Of course we must expect that the "cases operated on" will always present a higher percentage of mortality. The very fact that they have seemed to demand operative procedure is the very best evidence of their graver character.

After the most careful study of all the statistics which can be found the physician or surgeon, when brought face to face with a serious case of thoracic effusion, must in the end decide for himself in each case on its individual merits, the important question as to whether he should resort to surgical measures of relief.

To inform his judgment for such an emergency he must of course bear in mind the various pathological conditions present as well as their immediate or remote possible or probable tendencies and complications.

Thoracic accumulations are either *purulent* or *non-purulent*. It will be more convenient to consider the latter class first.

1st.—NON-PURULENT THORACIC ACCUMULATIONS.

Of these again we have several sub-varieties not only in regard to the precise nature of the fluid, but in regard to the pathological processes on which the accumulation depends.

The following classification will answer our present purpose:

- (a) Acute serous or sero-fibrinous hydro-thorax.
- (b) Chronic serous hydro-thorax.
- (c) Sero-sanguineous hydro thorax.
- (d) Pneumo-hydro-thorax.

In regard to the applicability of thoracentesis in any of its methods to the first of these sub-divisions, or *acute serous* and sero-fibrinous hydro-thorax, I will have but little to say. All agree that the operation is but seldom needed in such cases. The treatment for the active pleurisy is all that is usually required. Absorption generally takes up the fluid as the inflammation subsides; or if this process be tardy, counter irritation, iodine applications, and in some cases iodide of potassium and mercury, separately or combined, will usually suffice.

Should the accumulation increase so rapidly, however, as by its pressure to endanger the life of the patient by suffocation, then I need hardly say that the fluid should be removed. The best method of doing so will be considered further on.

2d.—CHRONIC SEROUS HYDRO-THORAX.

There are several varieties of this form of hydro-thorax, mostly due to the cause producing the accumulation.

In the first place it may result from a chronic or passive form of pleuritis—what Dr. T. Clifford Allbutt designates as "quick effusive pleurisy." The symptoms of the inflammatory precedents or concomitants may readily escape detection, the fever being slight

and the symptoms not at all distressing. The patient perhaps only complains of feeling badly in the evening, and the thermometer shows a degree or two of increased temperature as night comes on. Sometimes the accumulation is so gradual that dyspnœa is not complained of till a quantity of fluid sufficient even to endanger life has already been effused.

It is in the application of the operation to such cases that there seems to be the greatest discord among the authorities. On the one hand we find those who affirm that the resort to tapping should be confined to those cases in which the patient is on the verge of suffocation as a dernier resort to ward off the impending death; while on the other hand a larger, and I think increasing number, advise the removal of the fluid as a therapeutic means to *anticipate* in due time this very danger.

Those who refrain from operating till driven to resort to the trocar by the urgency of the symptoms are apt to dwell on the alleged danger incident as they contend to the operation; while their opponents insist on the danger of a sudden and fatal increase of the fluid in the absence of the attendants and on the injurious effects incident to the continued presence of the fluid in large quantities.

Let us then examine the ground on which each party stands.

In the first place what are the dangers asserted to be incident to the removal of a large quantity of fluid from the pleural cavity, and to what degree may such danger, if admitted, be avoided?

Dr. W. Fox again presents us with an elaborate table "Showing the Causes of Mortality in Paracentesis of Serous Effusions in Pleurisy," which will aid us in this discussion. His table comprises 353 cases of operation for serous effusions with a mortality of 87, or 24 per cent., and the causes of death are given as follows: purulent transformation, 32; tubercles of lungs or elsewhere, 20; acute disease of lung or opposite pleura, 5; malignant disease, 3; grave general complications and miscellaneous, 11.

It seems to me that the heading of this table presents as good an example as can be found of begging the question. Can we really consider for example the deaths under the head of malignant diseases as attributable to the paracentesis? The same question might be asked in regard to those under the head of "tuberculous" and those enumerated under "grave complications of miscellaneous."

It may, for the sake of argument, be admitted that some of the patients with these serious accompaniments of the hydro-thorax may have had their term of life more or less shortened by the removal of the fluid, but surely it is simply a *petitio principii* to assert—either directly or by the phraseology of the heading of the table—that the operation was the "cause of the mortality" in all or even a majority of the cases.

The same criticism, only in perhaps a less positive form, may be

applied to the deaths attributed to "purulent transformation" and to "acute disease of lung or opposite pleura."

What proof have we that these conditions were really brought about as a result of the operation? Is it not more reasonable to assume that the very fact that the cases seemed to demand the resort to operative proceedings, is good evidence that they were of so grave a character as to tend of themselves to the development of serious complications of various kinds.

In regard to purulent transformation, also, we are inclined to agree with the eminent French teacher, Prof. Trousseau, and others, who assert that there is little evidence to connect said transformation with the operation carefully performed, unless indeed in a very few instances. Perhaps a more extended investigation of the subject of the transformation of the serous into a purulent fluid may confirm the assertion recently made by M. Dieulafoy. He states that in all cases of serous hydro-thorax the fluid will contain some red blood corpuscles. If even perfectly devoid of color he finds from 1500 to 2000 red corpuscles to the cubic millimeter of fluid. If there be from 6000 to 7000 in the same quantity, he asserts that there is a great liability to purulent transformation, or even if that number exceeds 2500. But, besides these objections enumerated above by Dr. Fox, there are certain other asserted dangers which are worthy of a few moments discussion. Acute congestion of the lungs with albuminous expectoration, dyspnoea, etc., coming on immediately after the operation is one of these. This is true, does sometimes occur; as, indeed, is admitted by all surgeons of experience. But in the first place may we not in many cases avoid this accident by a more gradual removal of the fluid, taking only a little at a time and watching the result; and in the second place may it not be true as affirmed by many that such cases as are specially liable to this danger are those complicated with serious troubles such as tuberculosis, etc.? Dieulafoy asserts that on investigating the circumstances of all the reported "examples of this class of accidents, I find that they have always been associated with either the immediate evacuation of a large quantity of liquid, or with pleurisies complicated with affections of the heart, bronchitis, tuberculosis, etc.; and the precept is to limit the quantity of liquid extracted at a time, and to proportion this to the complications which may exist."

In regard to this point I can give no personal evidence, as I have never seen this condition come on subsequent to the removal of thoracic fluid. Again, cases have been reported of sudden dangerous and even fatal syncope having been produced by the operation. These cases must certainly be very exceptional—provided the fluid be gradually removed. I have never had the accident to occur in either my own hands or in my presence, and I do not think my experience is exceptionally small as compared with other hospital surgeons.

It must be remembered that sudden death occurs in some cases of large accumulation without any operative procedures. T. Clifford Allbutt reports three such cases as having fallen under his personal observation in one hospital. So it would seem that if this be one of the dangers belonging to paracentesis thoracis, it also appertains to the leaving the hydro-thorax unrelieved. The dislodgement of embola and consequent cerebral trouble, and asphyxia from pulmonary obstruction due to the same cause, have been mentioned as possible consequences of the movement of the heart and large vessels back to their positions as the displacing fluid is withdrawn. Possibly this may be one of the risks incident to the operation, but it is too surely so exceptional an occurrence as not to stand materially in the way of securing any undoubted benefits the operation may offer.

In the next place, then, let us enquire what dangers threaten the patient suffering from large fluid accumulations in the pleural cavities; and this injury will at the same time naturally lead to the consideration of the indications for operating for its removal.

We will leave out of consideration the smaller serous or sero-sanguineous collections, for no one has yet advocated their immediate removal, and all agree to let them alone, or first endeavor by other agencies to promote their absorption.

If a pleural cavity be full or nearly full of fluid, the lung is compressed; its functional activity is destroyed, and if the condition be allowed to continue its tissues become sodden with the fluid, and its ability to expand lessens with the length of time it remains subjected to this deleterious influence. If there still remain any tendency to chronic pleuritis, bands or layers of fibrinous effusions may be thrown out, become more or less organized, and tend to permanently imprison the lung, or parts of it, in its collapsed state. Here then is a serious element of danger in delaying the resort of operative measures.

Again, a patient, one of whose pleural cavities is distended with fluid is in constant danger of sudden death from a possible sudden increase of the fluid when surgical aid may not be at hand. Indeed sudden fatal syncope may occur in the very presence of a physician. I have already mentioned that Allbutt alludes to three such cases occurring in his hospital experience alone, and he also states that several others have occurred in private practice. Prof. E. S. Lewis, of this city informs me of a similar case in his personal experience.

Again, the displacement of the heart in many cases probably leads to such twisting of the large vessels—mostly the veins—that their current is impeded and a tendency to thrombosis is the result. It must be borne in mind that the heart is more or less fixed at its base, being there firmly connected with the lungs and thoracic cellular tissue through the medium of the large vessels. When the heart is displaced by the pleuritic fluid it must, therefore, be

tilted in the opposite direction, the apex and body being moved on a pivot represented by the large vessels. Under such circumstances the caliber of these vessels—particularly of the more pliable veins—must be lessened near the heart. May not this be the correct explanation of the œdema of the inferior extremities so often met with in these cases,—as well as of the sudden deaths from embola, producing sudden asphyxia, hemi-plegia and pulmonary gangrene? Indeed we may account also for some of the reported cases of sudden death after the operation in which post-mortem examinations have revealed the results of embola, by bearing in mind that a thrombus, already formed at the obstruction above alluded to, may have become detached on the caliber of the vessel being restored by the heart assuming once more its normal position as the fluid is removed. So that in such cases the long continuance of the cardiac displacement may be more to blame for the results than the operation.

Dr. Henry Barnes in a recent article on this subject suggests another danger. He thinks that the long continued stretching of the pleura may so impair its absorbing power as to account for the necessity in some old cases of often repeated operations. There may be a good deal of truth in this suggestion.

I think I have now stated fairly the position assumed by each party to this controversy. If in so doing I have so expressed myself as to give an intimation of the side to which I belong, it is perhaps because the "common sense of the thing," if I may be permitted the expression, clearly leads to the conclusion that the party who declines to wait till death, so to speak, actually lays his hand on the patient, before taking steps for his relief, is surely right. The patient is in acknowledged risk of his life; the danger is definite and clearly understood. In uncomplicated cases it is due solely to the continued presence in large quantity of the pleuritic effusion; in complicated cases the fluid adds greatly to the danger and may prove the immediate cause of death.

Under such circumstances shall we wait till the patient is cyanosed and gasping for breath, or shall we ward off these extreme symptoms by removing the immediate cause which tends this way.

What then are the indications for operation in cases of chronic serous hydro-thorax.

It is convenient to have some arbitrary rule in this matter, though, as in all medical and surgical cases, each one should be judged by itself, at least within certain limits.

I would therefore say, that as a rule we may be safely guided by the recommendation given by Dr. Barnes, in the article already mentioned. If the pleura be half full he waits to see what time, aided by therapeutic means, may accomplish. If the cavity become two-thirds full, the point of danger approaches and the fluid should be lessened or removed. This rule I would approve as practically a good one.

In cases of acute serous effusions, it is best—unless urgent symptoms present themselves—to wait and see if the remedies used for the inflammatory condition may not suffice. As already stated these effusions are usually absorbed, and the operation is generally unnecessary.

In the other varieties of non-suppurative accumulations, *i. e.*, sero-sanguineous, hydro-thorax and pneumo-hydro-thorax, we must be guided by the exigencies of the case; the indications indeed may be considered the same as in the case of the chronic serous hydro-thorax. I need not therefore delay longer to specially consider the operation as applicable to these forms of pleural trouble.

Nor need we say much on this occasion concerning the application of paracentesis to the relief of the *purulent thoracic accumulations*.

Not but that this is a subject of great importance: there are few more so. But we do not find much difference among modern surgeons in regard to it; and, therefore, after simply stating the conclusions the profession has reached relating thereto, I may leave the subject as "*res adjudicata*."

A purulent accumulation anywhere in the body is always productive of harm and frequently involves the greatest risk. Wherever practicable it should be removed, and such measures be adopted as will tend to arrest the further production of pus, and to give immediate exit to what may continue to be formed. Empyema affords no exception to this wise surgical axiom. Indeed I need hardly say that there are circumstances connected with this form of suppuration which makes the law specially applicable. The accumulating pus is here specially injurious, and at the same time its removal is perfectly practicable. The almost universal experience of modern surgeons confirms the truth of these assertions, and we may, therefore, without further delay pass on to consider the last phase of our subject.

THE METHOD OF OPERATING FOR THE REMOVAL OF THORACIC ACCUMULATIONS.

These may be classified as follows, and their special adaptability to the various conditions found will be considered in the order in which they are mentioned.

1st. Simple tapping with trocar and canula; 2d, The syphon method; 3d, Aspiration; 4th, The drainage method.

1st. Simple tapping with a trocar and canula without the antiseptic spray is now but seldom resorted to in cases of serous effusion. So great is the fear of the admission of air influencing the transformation of a serous into a purulent collection, that the aspirator or some other means is fast supplanting this old method. If, however, the antiseptic spray be kept up during the whole time there is no reason why we may not expect very good results in

cases where the means of securing a more perfect exclusion of air are not at hand. If practicable, however, I would prefer

2d—THE SYPHON METHOD.

This is really a modification only of the last, and the necessary apparatus is so simple as to be pretty generally capable of being extemporized. An ordinary trocar and canula with a few feet of gutta percha tubing is all that is absolutely required. The canula, however, should have no shoulder, or only a small collar, in order that it may be readily slipped into the tube. If the proximal end of this tube be slipped over the distal end of the canula, the trocar can be made to perforate the side of the tube near the canula and to enter the latter. When this is done, and everything is ready for the operation, sink the whole apparatus under the carbolized solution of about 2 or 3 per cent. Then let an assistant seize the distal end of the tube between the fingers, mashing it so tight as to exclude the air. Let the surgeon now at once puncture the thorax and withdraw the trocar. As the latter is removed the tube may be slipped further over the canula so that the latter may pass beyond the injury inflicted by the trocar where it penetrated the wall of the tube. By causing the assistant now to lower the distal end of the tube and keep it below the surface of the fluid in the basin containing the carbolic solution a perfect syphon is made, and the liquid from the thoracic cavity is conducted under the fluid in the basin. This simple expedient, first suggested by Dr. Girgensohn, of Riga, Prussia, meets every indication for the evacuation of serous fluids. I show you, however, an apparatus which I use in such cases and which presents some conveniences. It consists of a hollow trocar, sharp-pointed and covered with a blunt pointed canula, which, after perforation, may be made to slip forward and cover the sharp point of the trocar. It has the advantage over the ordinary trocar and canula in this: the necessity for the removal of the trocar is obviated and the operation is thereby materially facilitated. It is better than the ordinary aspirator needle in this respect; *i. e.*, the sharp end being protected there is no danger of injury to the parts in the thorax as the fluid subsides and the lung expands. The gutta percha tube is interrupted with glass at one point, thus enabling the operator to see the nature of the fluid as it passes; and there is a metallic spring near the further end by which the tube can be compressed at will, thus obviating the uncertain resort to the fingers of an assistant. The syphon plan has one advantage over aspiration which in some cases is of decided benefit. The power applied in withdrawing the fluid can be regulated more delicately. This is done by raising or lowering the basin in which the distal end of the tube is submerged. In cases of diseased lung, or suspected adhesions, where a very gradual and gentle suction is desirable, I would, therefore, prefer the syphon method.

3d—ASPIRATION.

As the most certain method of excluding air while removing the fluid, this plan claims precedence over all others. It is now so familiar to the profession, that I need hardly say any thing more about it. By using the finer tubes the removal of the fluid may be effected as slowly as desirable; and thus the dangers attending rapid and forcible exhaustion of the pleural cavity are in a great measure obviated.

4th—DRAINAGE.

The other methods described are only applicable to the non-suppurating effusions. Where pus is present, not only must the cavity be evacuated, but efficient drainage must be secured. This can only be effected by some permanent opening, which at the same time affords us the means of washing out the cavity. There are several methods, each specially adapted to certain cases, which may serve to carry out the indications in view.

In the first place I have in some cases of simple empyema succeeded very well by merely inserting a drainage tube through the large canula by which the pus has been evacuated, using daily injections of carbolic solution for the purpose of assisting in cleaning the cavity of all pus, and at the same time acting antiseptically on the walls.

In other cases, however, a double opening is found advisable. It is usually recommended that we make one of these in the usual position for paracentesis,—*i. e.*, about the 8 or 9 intercostal space on a line with the inferior angle of the scapula,—while the other is made anteriorly.

Chascaignac, and many French surgeons following him, pass a drainage tube through from one opening to the other. I adopted this plan in two cases; but have abandoned it entirely. I now agree with those who assert that the tube thus used acts too much like a seton; and, indeed, it is unnecessary, to say the least. A tube in each opening only sufficiently long, to keep open the orifice through the thoracic walls is all that is required. Nor, as M. Potain has shown—at a recent meeting of the Paris Medical Society on the 27th of last July,—is it at all necessary that the openings should be far apart. He suggests that they be made alongside of each other—so near that should a freer opening become necessary the two may be united by an incision into one, both being located in the sixth intercostal space. In washing out the cavity the fluid used is just as efficiently applied to the whole interior walls as if the openings were far apart. In doing this he uses the syphon method, and as he says the cavity is made to wash itself out.

There is frequently some difficulty in keeping the openings free, on account mainly of the approximation of the ribs in cases where there is a collapse of the thoracic walls. A suggestion, whose authorship has just now escaped me, has recently been made, which

I take to be a good one. It is to use a hollow uterine stem passary in each opening. Its mechanism is such that it retains its position, and the distal ends can be inserted into two gutter-percha tubes, so as to admit of syringing out the cavity or injecting it by the syphon method. But there are some obstinate cases—generally of old standing and neglected—in which a large free opening becomes necessary. Here a free incision should be made between the ribs, and if they are found to have approximated each other so much that the little finger cannot be made to pass between them, a portion of the upper border of the lower-most rib must be removed with a small trephine, or bone nippers. A free opening is thus secured, through which frequent ablutions may be practiced.—*New Orleans Medical Journal*.

—————:O:—————

Chloramyl, a new Anaesthetic and an Improved Inhaler.

—————

To the Editor of the Medical Record.

SIR:—Having had considerable experience in the administration of the various anæsthetics in use at the present day, viz: chloroform, ether, etc., and not feeling satisfied with the safety, or rather *unsafety* of chloroform, or with the many faults of sulphuric ether, which so nearly counterbalance its comparative safety as to preclude its use in favor of chloroform in many cases, I have therefore experimented with various compounds in the hope of discovering a new and better anæsthetic.

Early in the month of April, 1877, while treating an asthmatic patient with the nitrite of amyl, I became impressed with the idea of augmenting the heart's action with the drug, and thereby *preventing* the tendency to syncope and asphyxia, from paralysis of the heart, in cases of chloroform narcosis.

I then began a series of experiments upon animals, first administering chloroform and then the nitrite of amyl. Then I began to mix them for use, aiming to get such a proportion of the amyl as would just counteract the paralytic effect of the chloroform. I found that while pure chloroform (Squibbs') would mix readily with the nitrite of amyl, producing a fine clear solution, the chloroform of other manufacturers was unsatisfactory, leaving a milky solution of unpleasant odor. Continuing my experiments, I came to the conclusion that a quarter of an ounce of the nitrite of amyl to the pound of Squibbs' chloroform was about the proper strength, and that the combination was far safer for general anæsthetic purposes than chloroform uncombined; indeed, in my hands, and in those of others, so far as tried, it seems to be fully as safe as sul-

phuric ether, and far more pleasant in its administration, possessing all of the advantages of pure chloroform, but without its dangers.

Upon becoming satisfied of the value of my discovery, I named it chloramyl. I first administered chloramyl to persons in June, 1877, as follows: June 6th I administered the compound to Charles Detric, a young, healthy man, for the purpose of dressing a badly crushed thumb, both the patient and bystanders being wonderfully pleased with its operation. Next, June 16th, I gave it for amputation of a finger; then, June 18th, for extraction of a tooth; since which time I have employed it (chloramyl) in a great variety of cases in both surgical and obstetrical practice. I find that patients usually take it better than chloroform alone, and so far there has not been the first indication of danger from its use. In exhibiting chloramyl, the patient's face becomes flushed much sooner than with chloroform; but press the drug right along and the countenance does not become pale. Both the heart's action and respiration are kept up thoroughly throughout the anæsthesia. I have given this prescription to several physicians, and induced them to try the chloramyl with the most satisfactory results. I have also (last month) communicated the same to Professors Maclean, Dunster, and Frothingham, of Michigan University; and have reported my discovery to the Cayuga County, N. Y. Medical Society.

Having noticed lately several communications in the columns of the *Record*, from Dr. F. A. Burrall and others, on the use of amyl nitrite as an antidote to chloroform in cases of poisoning, I concluded to publish my discovery. As Dr. Burrall states in his article in the *Record* of July 20th, "With our present knowledge of the antidotal properties of amyl nitrite in relation to chloroform, it is but justice to our patients to have it at hand when chloroform is administered." I agree with him that we should have it at hand, but not in a separate bottle, to use *after the danger has become imminent*, but (as it produces no ill effects) *mixed with the chloroform*, in such a proportion as to prevent the approach of danger, by both syncope and asphyxia; for such I claim to be the effect of this combination, and as such as I give chloramyl to the medical profession, asking that it may be given a full and fair trial, and trusting that it may become the humble instrument in other hands of saving human life. Not that I would detract from the honors due the inventor of chloroform, for it was a grand invention; but if we can relieve its administration from the embarrassment and danger which have heretofore attended its use, will it not indeed be a great boon to humanity?

The formula I use for chlorymal is

R. Squibb's chloroform	-	-	-	1 lb.
Nitrite of amyl	-	-	-	2 drachms.
Mix.				

But I would suggest that the amount of nitrite of amyl be di-

minished in long and tedious operations, and on farther trial it may prove best to vary the proportions, the point aimed at being to use just sufficient amyl nitrite, to counteract the paralytic effect of the chloroform.

GEORGE E. SANFORD, M. D.

Medical Record.

—:O:—

Annual Meeting of the American Gynaecological Society.

The third annual meeting of the American Gynæcological Society was held at the hall of the College of Physicians, Philadelphia, September 25th, 26th, and 27th, the sessions lasting each day from ten to one and from three to five o'clock. The following members were present: Fordyce Barker, T. A. Emmett, T. G. Thomas, E. Noeggerath, P. F. Mundé, of New York; J. Byrne, H. J. Garrigues, of Brooklyn; J. D. Trask, of Astoria, L. I.; D. H. Storer, G. H. Lyman, A. D. Sinclair, J. R. Chadwick, W. L. Richardson, of Boston; Gilman Kimball, of Lowell; W. Goodell, R. A. F. Penrose, A. H. Smith, T. M. Drysdale, E. Wilson, of Philadelphia; S. C. Busey, J. T. Johnson, of Washington; H. P. C. Wilson, of Baltimore; J. P. White, of Buffalo; W. H. Byford, of Chicago; J. C. Reeve, of Dayton, Ohio; H. F. Campbell, of Augusta, Ga.; and G. J. Engelmann, of St. Louis.

A number of medical gentlemen present were made guests of the society, and Dr. Barker, the ex-president, and Dr. J. L. Atlee, of Lancaster, Pa., an honorary member, were requested to take seats upon the platform.

WEDNESDAY, morning session The senior vice-president, Dr. William Goodell, called to society to order, and introduced Dr. A. H. Smith, who gave the address of welcome in behalf of the Philadelphia members.

Dr. J. C. Reeve read an account of a case of rupture of the perinæum without any implication of the vulva. The patient was a multipara, confined under the care of a midwife. Both anal sphincters were ruptured, and the child was delivered through the anus. In the discussion which followed, Dr. Campbell dwelt on the importance of an immediate operation in cases of rupture, since the lochia and other discharges do not seem in any way to interfere with the healing; while it often happens that operations performed later, the edges of the laceration being refreshed, fail. Dr. White thought that greater stress should be placed on the necessity of preventing these lacerations. He strongly recommended the making of lateral incisions. In this way the perinæum may be preserved intact, and such incisions very rapidly heal, the edges being brought together by the natural contraction of the parts.

A paper by Dr. Marion Sims on the Surgical Treatment of Dysmenorrhœa was then read by the secretary. The object of the paper was to establish the author's claim to having first suggested the antero-posterior incisions of the cervix in cases of stenosis, and the great value which he attached to this operation.

Dr. Barker thought it at least remarkable that one gynæcologist should have performed this operation a thousand times, while others, having equal opportunities for operating, should so rarely see cases which seemed to call for such treatment. He was convinced that the operation was often performed unnecessarily and injudiciously. He was cognizant of sixteen deaths which had followed this method of treatment, even where the operation had been performed by skillful surgeons. There were many cases of stenosis where some treatment seemed necessary to relieve either a dysmenorrhœa or sterility. The question, however, whether successful results were so often obtained as were reported. He had himself seen over a hundred cases in which an incision had been previously made by operations, but no relief had followed.

Dr. E. Wilson was opposed to this method of treatment, and believed that better results were obtained from a dilatation of the cervix.

Dr. Noeggerath said he could never forget Dr. Peaslee's two objections to this operation. In the first place, in cases of ante-flexion of the second degree the canal can be straightened only by an incision running so high up as to open the peritoneal cavity. In the second place, by such a procedure, the parenchymatous structure of the uterus is so injured that there is great danger of septicæmia. There may be cases in which a slight incision, not deeper than one fifth of an inch at the inner os and one fourth of an inch at the outer, may be justifiable. He believed, however, that the vast majority of cases reported as cured were in reality only relieved for two or three months. Before cases are reported as successful they must be under observation a long time.

Dr. H. P. C. Wilson had no doubt that the operation was too frequently performed, but still there were many cases where it was the proper thing to do. He had seen the most serious results follow the introduction of a sponge tent for the purpose of dilatation.

Dr. Lyman believed strongly in dilatation, and was opposed to the treatment recommended by the author of the paper.

Dr. Emmett said that careful observation had taught him that where the flexion was above the vaginal junction a proper examination of the case would discover trouble elsewhere, and that the uterine difficulty was merely the exponent of some abnormal condition lying outside the uterus itself. It was due to an obstruction of the circulation. A rectal examination will detect a thickening of the broad ligament on one or both sides, the result of a previous cellulitis. The fault, therefore, does not lie in the uterus

in the beginning, nor will any such operation effect a cure. He believed firmly that mechanical dysmenorrhœa was a myth. In all these cases where such an operation is contemplated, he urged strongly the searching for the results of a previous cellulitis. Were this done the operation would soon come to be a thing of the past.

Dr. J. P. White reported a case of extra-uterine pregnancy in which the fetal bones had been discharged through the bladder. Drs. Atlee and Storer reported other cases of extra-uterine pregnancy. The general sentiment was in favor of abstaining from an operation as long as possible, and when surgical interference was demanded then to remove the fetus, leaving the placenta behind to take care of itself.

Afternoon session. Dr. J. T. Johnson reported a very rare case, in which he was called upon to deal with a combined foot and head presentation, and in which there occurred a fracture of the spine in utero.

Dr. Engelman gave the details of a case in which a child was born with a great many of the bones broken, some of them presenting evidences of having been broken but reunited.

Dr. Noeggerath had seen one case in which there had occurred in utero a fracture of a humerus and also of a femur. Before the child was five years of age thirty-two spontaneous fractures of different bones had taken place.

Dr. Campbell had seen two children, in each of them of whom a fractured rib had been discovered soon after birth.

Dr. Emmett read a most carefully prepared table, giving an analysis of one hundred and sixty-one cases in which he had operated for vesico-vaginal fistula, with an account of the character of the preceding methods of delivery in each case. He stated that he had never seen a case of vesico-vaginal fistula which had been caused by the use of instruments. In the great majority of cases a neglect to empty the bladder is found to be the exciting cause. He would impress on the minds of the members of the society the necessity in all cases of introducing the catheter, no matter what the patient's statement as to the supposed condition of the bladder may be. The fistulæ in most of these cases had been caused by prolonged pressure.

Dr. Smith thought that the accident was not due to the amount or violence of the pressure, but to the duration of it.

Dr. Storer did not believe in the too frequent use of forceps. If the head ceases to recede, or, in other words, it becomes impacted, then of course they must be used.

Dr. Barker observed that an over-distended bladder was *per se* a cause of retarded labor. The accessory muscles were not brought into action, owing to the pain occasioned by the distention. In cases where the parts are subjected to prolonged pressure we incur the danger of peritonitis, cystitis, and other inflam-

matory diseases. A prolonged first stage of labor, owing to the depression and exhaustion it produces, is a powerful factor in causing a prolonged second stage. In such cases the administration of an opiate to produce sleep, or of quinine in full doses to excite the uterus, was the proper method of treatment.

Dr. Wilson (Baltimore) believed that the use of the forceps should not be considered as an operation, but should be frequently employed with a view to shortening the labor.

Dr. Barker added that the forceps were demanded not only when the head ceases to recede, but when it ceases to advance.

Dr. Atlee thought that forceps should be used for the purposes of relieving pain and cutting the labor short.

In answer to a question of Dr. Smith, Dr. Emmett said that even where the head was pressed firmly against the pelvic brim it could be pushed back often by means of the forceps, and thus the eather could be introduced. If this could not be effected, he believed in tapping the bladder with the aspirator through the abdominal wall, rather than running the risk of trying to extract a head, the bladder being distended.

Dr. Reeve had thus emptied the bladder with the aspirator in one case, with no unfavorable symptom.

Dr. Goodell thought that the tendency of the discussion was to make too light of the operation of forceps. He was of opinion that their proper use required a certain amount, at least, of practice and skill. He considered that many perineal lacerations were due to the improper use of forceps by inexperienced operators. He advocated the removal of the forceps as soon as the head came to the perinaeum, unless there were symptoms demanding an immediate delivery.

THURSDAY, morning session. Dr. Wilson (Baltimore) gave the details of a case in which he had succeeded in stopping a severe post-partum hæmorrhage by scraping the placental surface of the lining membrane of the uterus with the finger-nails, using the hand as a curette, as it were.

Dr. Penrose gave a summary of the methods proposed for treating post-partum hæmorrhage. He closed his paper by strongly urging the use of common vinegar, a means which he had for years employed, and which had never failed at once to arrest the flow of blood.

A general discussion on the proper treatment of post-partum hæmorrhage followed the reading of the two papers.

Dr. White had never used vinegar as thus recommended, but had many times used it as a local styptic in uterine surgery with remarkable success.

Dr. Thomas considered that all cases of post-partum hæmorrhage were due either to uterine inertia, to some influence which prevents a uterus from contracting, although the uterus itself is not at fault, or to some solution of continuity. He believed that

nine out of ten cases were due to some mismanagement on the part of the attending physician, who does not properly see to it that a firm uterine contraction takes place after delivery. A small clot, for example, forms, and this gradually increases; the uterine fibres around it become relaxed, and then follows the hæmorrhage. He thought that the third stage should not be considered as the expulsion of the placenta only, but it should be the complete tonic contraction of the uterus, the expulsion of the placenta being merely an epiphenomenon of this stage. The ferric salts were too dangerous ever to be used except as a last resort. What we want is a stimulating application to the interior of the uterus. He did not believe that vinegar was a specific, but that alcohol or hot water would do just as well as anything else.

Dr. Atlee strongly favored the immediate introduction of the hand within the uterus.

Dr. Smith dwelt on the necessity of freeing the uterine cavity from clots, and after that he would advise the injection of hot (110° F.) carbolized water.

Dr. Campbell thought it of the utmost importance in all severe cases to raise the foot of the bed, that the brain might be stimulated by the return of blood to the head.

Dr. Engelmann spoke in defense of the use of ferric salts. The danger was that they were not properly used. The uterine cavity should first be cleared completely of clots, and the iron should be applied through a speculum.

Dr. Trask in reply said he did not believe that the iron was of advantage as a styptic, but as an irritant, and as such there were other and safer means at our disposal.

Dr. Chadwick alluded favorably to the subcutaneous injection of ether, which had proved successful in three cases under his care.

Dr. Barker laid especial stress upon the hæmorrhagic diathesis as one of the predisposing causes of post-partum hæmorrhage. It was often found associated with excessive anæmia, and as such required to be treated from a prophylactic stand-point with the appropriate remedies. If the hand is introduced within the uterine cavity, it should be kept there until expelled by uterine contractions. He had, however, in four cases seen a laceration of the os produced by the introduction of the hand within the uterine cavity. This operation was therefore to be avoided if possible.

Dr. Wm. Goodell then delivered the annual address. After paying a graceful tribute to the memory of Drs. Peaslee and Atlee, who had died during the past year, taking a brief review of the work of the last meeting, and making some useful hints as to the future, he passed at once to the consideration of the relation which neurasthenia bears to the diseases of the womb. The address was a firm and scholarly protest against the tendency of meddling gynæcology,—the treatment of local uterine effects

instead of the great causes which were producing the effects. The essence of many of these diseases lies in the nerves centres, and not in the sexual organs. He warmly advocated the methods of treatment described and followed with such happy results by Dr. Mitchell.

Afternoon session. Dr. Byford read a paper on Dermoid Tumors of the Ovaries. Some later theories as regards their development were subsequently explained by Dr. Noeggerath.

The next paper was by Dr. Richardson, who spoke on the Treatment of the Acute Parenchymatous Nephritis of Pregnancy, with a special reference to the question of the proper time for the induction of premature labor. He believed that while the quality of the urine gives the signal-note of danger, the quantity of urine daily secreted by the patient should be our guide as to the extent of danger. Many cases of nephritis terminate in eclampsia, while others, oftentimes apparently more severe as judged by the symptoms, do not. The key to the problem he thought was to be found in the fact that in the former class of cases the daily quantity of urine grows less and less, while in the latter, although it becomes diminished, it does not at all reach the small amount obtained in the first class of cases. Wherever, then, we have to deal with the acute nephritis of pregnancy, the writer advocated the keeping of a daily record of the quantity of the urine secreted. If this falls below a certain point, despite all efforts to prevent it, then labor should be induced; otherwise it should not, no matter how grave the accompanying symptoms may be.

Drs. Thomas, Barker, and Lyman agreed with the writer, and thought the suggestion an eminently practical one for future investigations.

FRIDAY. The morning session began at nine o'clock with closed doors. The following elections took place:—

President, T. G. Thomas, of New York; vice-presidents, D. H. Storer, of Boston, H. P. C. Wilson, of Baltimore; council, T. A. Emmett, of New York, A. H. Smith, of Philadelphia, John Byrne, of Brooklyn, G. J. Engelmann, of St. Louis; secretary, J. R. Chadwick, of Boston; treasurer, P. F. Mundé, of New York; honorary Fellows, J. S. Billings, U. S. A., Washington, D. C., J. Matthews Dunean, London; active Fellow, Nathan Bozeman, of New York.

It was voted that the next meeting be at Baltimore, the third Wednesday of September, 1878.

Dr. S. C. Busey read an account of a case of Alternating Anterior and Posterior Version of the Uterus.

Dr. Garrigues contributed a valuable historical account of the operation of gastro-elytrotomy, with a critical examination of the merits of the operation.

In the discussion which ensued Dr. Thomas stated that thus far no hæmorrhage had followed the operation. Should it do so, it

could easily be controlled by a carbolized tampon in the vagina, and a second in the iliac fossa, the latter being held in position by a firm bandage of sticking-plaster. During the last two hundred and fifty years New York had seen only one successful case of Cæsarean section, while in the last eight years there had been five successful cases of gastro-elytrotomy. There was no danger of creating a urinary fistula; the worst that could happen was a rent in the bladder, and such rents always readily healed.

Dr. Byford favored the operation as being much safer than gastro-hysterotomy.

Dr. Bozeman considered the operation a very dangerous one, owing to the fact that the ureter must necessarily be injured, and a ureto-vaginal fistula was a very serious affair, there being only one case on record of such a fistula being healed.

Both Dr. Thomas and Dr. Garrigues replied that the danger of injury to the ureter was an imaginary one, the latter having demonstrated on the cadaver that the incision and tear are made below and parallel to the normal position of the ureter.

Dr. Smith read an elaborate paper in which he entirely opposed the use of the forceps as a lever, and endeavored to show, by a mathematical demonstration, that the pendulum-like use of the forceps was unsafe, and contrary to the true principles of mechanics.

Afternoon session. Dr. Barker believed that in many cases, while both blades of the forceps should advance at the same time, they should move at different rates. In this way the amount of irritation, friction, and compression is relieved, for you thus allow intervals of rest, now on one side and now on the other of the vaginal track. In no case should one end of the head be thrown back while the other is brought forward, for in that way injury would be done.

Dr. White favored the pendulum use of the forceps under certain restrictions.

Dr. Storer and Dr. Penrose also took exception to the views of the reader.

Dr. Thomas believed that the forceps should be used as tractors when they could, but as levers when they must. If the delivery is to be made after a long labor, when there is œdema from pressure on the venous system, then the lever action must be used, for only in this way can the œdema be gradually overcome. It was the same principle as we should apply in drawing a ring from a finger which was in a normal condition, and again when the finger was swollen. He believed that in all cases in which the pendulum movement was used, it must be as an adjunct only of a simultaneous traction.

Dr. Goodell thought that in gross the ideas of Dr. Smith were correct, but in detail they were wrong. The error was in not

remembering that the head was compressible. The leverage must be made always slowly, carefully, and within a limited space.

Dr. Campbell read a paper on Rectal Alimentation in the Nausea and Inanition of Pregnancy.

Dr. Goodell then delivered the farwell address, and after votes of thanks to the secretary and retiring president the society adjourned, to meet in Baltimore.—*Boston Medical Journal*.

————:o:————

To a Young Doctor from his Father.—(A Homoeopathic Physician.)

————

MY DEAR SON:—Your letter of inquiry as to a “policy” which shall serve you as a guide in your professional life, has been received. I rejoice at your beginning so early in life to use the term “policy.” Never lose sight of it, and it will guide you to social and professional eminence, as it has your father before you.

Your entering upon professional life at a time when our school is so greatly agitated and seems in danger of rupture, requires, as you indeed intimated, an unusual amount of caution. Could I foresee which side would win in the end, my advice would be short and to the point. But I myself am sorely perplexed and find it trying, at my time of life, to accommodate myself to the needs of the hour. I have even thought of retiring from active work, but my position is too prominent. I have only lately been elected an honorary member of the — State Society, am president of the — Central Society, chairman of the Bureau on Dose of the — Medical Institute and my name may possibly be used (without my sanction, of course) as a candidate for a chair in the — State University. (By the bye Dr. B— has promised to help me in this little matter and his influence is very powerful). All this tempts me to stick, hoping, that no matter who wins I shall be on the right side.

As to yourself, I trust that you will ever remember that to insure success you must be prepared to throw overboard all notions of so-called consistency. A young man of talent can not afford to sacrifice position to a mere whim. It will seldom pay you to fight the majority. Act and fraternize with them. But while doing so, conciliate by a show of sympathy to a minority, if composed of men of ability, who are apt to be in the right, but have not the tact to accommodate themselves to others, and thus usually succeed in only bringing upon themselves disfavor and contempt. I might name such men; but your acquaintance with the current literature of our school makes illustrating unnecessary. On questions of importance and of interest never commit yourself if you can avoid it. An easy way of doing this, is always to agree with

present company. To give an example: No one but a fool would talk anything but high-dilutionism to Dr. L—; in conversation with a man like Dr. H— of E— it would be thoughtless to omit a shrug of the shoulders or a confidential smile while mentioning them. “Individualize” with one man; but “generalize” with his neighbor.

To do this successfully be shrewd and bold. I know a man who read a paper on “Pure Homœopathy” at a meeting of medical men, deploring mongrelism and especially the use of crude drugs. He had his case with him, (thoughtlessness, mind you). A mischief loving listener opened it while its owner was reading his high toned paper, and upon finding in it *Calomel, Quinine, Dover’s Powders, Ipecac*, etc., all of them in crude, exhibited them good naturedly and thus absolutely ruined the effects of a carefully prepared paper. There you had a man who was sensible on the point of medication—but he should have left his case at home. I felt sorry to see a man of his ability overwhelmed with ridicule, owing to a little carelessness. Take due warning, my son. Nothing would so mortify me as the thought that you might be guilty of similar imprudence.

I need not speak to you of high dilutions in your practice, for you are nearly twenty-five years old. I have taught you the use of medicines in such doses as would produce desirable and appreciable effects. You have been shown how to discriminate between true science and blind enthusiasm. Remember these lessons! Hahneman was a man of originality and respectability, but you are too well read to follow him blindly. Men of his eccentricity are not often safe leaders. While it then seems necessary to avow a great deal of reverence for the “master” as an eminent man of the day has it; while it will do well enough at times to out Hahnemann Hahnemann himself in lofty enthusiasm for the “cause” and all that, remember that the fluid extract of a drug is much safer to depend upon than the two thousandth dilution. As you come across reports of cures with Swan’s high potencies, think of “skimmed milk.” But it would not be a bad move, could you occasionally publish a cure with the millionth potency, while showing a general disposition to favor low potencies. You will, by doing so, get the reputation of a careful, earnest, thoughtful and candid laborer in the field and may become a man of note, as others have by the use of the same means.

Time however hurries. Farewell for to-day. Remember, that I will advise you at all times to your advantage. Do not fail to make good the hopes of my heart, centered in you. Above all, my son, take no sides at present. Blows are falling rapidly and dealt carelessly. Take heed not to put yourself in their way.

Your co-laborer in the cause of Homœopathy and affectionate father,

H. R. A.

Cincinnati Advance, (Homœopathic Journal.)

Editorial.

Libel Suit against the Editor of the American Journal of Insanity.

From the *Buffalo Express* of October 9th, we learn that Dr. WILLIAM A. HAMMOND, of New York, has sued Dr. JOHN P. GRAY, Editor-in-chief of the *American Journal of Insanity* for libel, based on the publication, in the July number of the *Journal of Insanity*, of a paper read at the meeting of Superintendents of American Institutions for the Insane, in May last, by Dr. EUGENE GRISSOM, Superintendent of the State Insane Asylum of North Carolina. Our Editorial brother has our sincere sympathy for this attempt to make him responsible for another man's utterances. We do not see however, how the Doctor is to be held. Dr. Grissom's paper was read at a public meeting in Washington, and a large portion of it published in a daily paper of that city, and its publication acknowledged and replied to by Dr. Hammond in an "Open Letter" issued nearly two months prior to the publication of the *Journal of Insanity*. We learn, furthermore, by referring to the *Journal* that the article complained of was published as part of the proceedings of the Association of Superintendents, without Editorial note or comment.

We have refrained thus far from noticing the pamphlet warfare that has been carried on between Doctors Grissom and Hammond, but we cannot allow the opportunity to pass without protesting against the undignified and in many respects the unprofessional attitude assumed by both parties in the controversy. Dr. Grissom's paper is a severe arraignment of Dr. Hammond's professional career as an author, practitioner, and expert in Courts of Law. We cannot but regret that he did not assume a more dignified tone in his paper, for if true, the charges made, carry enough disgrace without indulging in such epithets as, "Cardiff Giant," "a moral monster whose bowels are but bags of gold," the Cagliostro of to-day, even with his wondrous armory of drugs and stage properties." These are not expressions which should be found in a calm dignified and straight-forward arraignment for unprofessional and dishonest practices."

Dr. Hammond in his "Open Letters" is, however, even more undignified and injudicious in his use of terms. Instead of boldly denying the charges made by Dr. Grissom, and defying their author to the proof, he indulges in threats of personal violence by saying that had he been present when the paper was read he might have been persuaded to horse-whip the author, and then, in what the *Express* calls "one of the most masterly pieces of satirical writing in the English tongue," attempts to prove Dr. Grissom laboring under

mental aberration. We cannot agree with the *Express* in terming this masterly satire, and while holding ourselves wholly neutral upon a question still *sub judice*, cannot but express in most strenuous language our abhorrence of the vituperative abuse heaped upon his opponent by Dr. Hammond. It savors more of the Kearney style of argument than anything we can now call to mind, and cannot but revert with damaging effect upon its author. No provocation should have made Dr. Hammond forget what is due the profession in whose ranks he has held such high position. To call a man a "cacaphonous hypocritical, ranting, howling bigot," to say of him; "a distempered and snailing cur has nobler mental and moral qualities than you; the vibrio that wriggles in decomposing filth is higher in the scale of existence; the foul bird that defecates in his own nest is less odious; the wretch who, actuated by perverted instinct, revels in nastiness and abominations is not so execrable; the monster who insults the mother who bore him is more entitled to human sympathy," is to indulge in language which only disgraces the writer and for quoting which we almost feel inclined to beg our readers' pardon.

In his reply to this Dr. Grissom very properly assumes a more dignified tone, he very plainly intimates that the suit for libel should have been brought against him in North Carolina, and offers to give ample bond to secure the payment of all damages an honest jury may award.

—:O:—

DR. C. HENRI LEONARD'S Physician's Ledger, Day-Book, and Reference and Dose-Book is received. The dose-book contains the medium and maximum doses of all officinal and many non-officinal remedies. Pocket day-book accommodates for forty families weekly, and is conveniently arranged for the purpose, while the reference and dose-book would seem to us convenient to the young physician often requiring such guide.

Physicians are invited to call and examine these books at Theodore H. Butler's book-store, 307 Main street, Buffalo.

—:O:—

Appointments to Utica Insane Asylum.

The Utica papers announce the appointment of Dr. E. N. BRUSH as 3d Assistant Physician in place of Dr. Livingston, resigned, and Dr. W. W. MINER, 4th Assistant Physician in place of Dr. Kenrick, now in Europe.

In these appointments the Buffalo Medical and Surgical Journal, as well as the citizens of Buffalo generally, suffer great loss. Their numerous friends will deeply regret their removal from this city where they have both already gained enviable reputation in the profession, and with the discriminating and intelligent public. We try to relieve our feelings of personal loss in the gratification of seeing real worth so positively and thoroughly appreciated and rewarded, for certainly the Medical Institutions of the State do not offer more honorable or desirable position for physicians, and we most heartily congratulate them upon the opportunity thus opened up to them.

DR. DE BEER'S *Antiseptic Atomiser* has recently been introduced in Buffalo, together with his Croup Bottle and Medicated Steam Bath. The Atomiser was used in recent clinic with highly satisfactory effect, the instrument throwing a continuous spray, and affording ample opportunity in point of time and extent of surface covered, for any surgical operation. The medicated bath apparatus is admirable for purpose designed. Dr. De Beer in a recent visit to Buffalo, kindly exhibited his various inventions to the profession, and received numerous expressions of appreciation and approval. Mercurial and Sulphur Baths can be readily applied at the bed-side or physicians' office, and his various instruments we have no doubt, will prove a valuable means of applying local medication.

—O—

Circular from the Surgeon General to Physicians and others.

To Physicians and others residing in the Cities and Towns visited by the Yellow Fever :

Acting upon the advice of members of the American Public Health Association, the Surgeon General of the Marine Hospital Service has organized a Commission to gather and record all important *facts* relating to the commencement and spread of the present epidemic of Yellow Fever, with the view of establishing truths upon which the theory and practice of prevention of future epidemics may rest.

The gentlemen composing the Commission, Prof. Bemiss of New Orleans, Dr. Cochran of Mobile, and Prof. Howard of Baltimore, have already commenced their work in New Orleans, and will visit the principal places in which the yellow fever has prevailed.

The cordial co-operation of all who have facts to communicate bearing upon the subject under investigation, is earnestly solicited for the Commission.

A preliminary report of the facts, gathered up to the 19th day of November next, will be presented to the American Public Health Association, which will convene on that day in the city of Richmond, to discuss the report, and to advise the best course to be pursued in concluding the labors of the Commission.

It is not intended to terminate the investigation on the 19th of November, but it is desirable that those interested in public hygiene, in all parts of our country, should meet in council prior to the assembling of Congress, as it is generally believed that legislation will be promptly taken in reference to preventing future epidemics. The agitation of the public mind upon this important subject is proper and commendable, but herein lies the peril of hasty or not fully matured legislation, and it is hoped that by the action proposed, Congress may have the benefit of the advice of the representative men of sanitary science.

The invitation of the Officers and Executive Committee of the American Public Health Association, extended for the Richmond meeting, is to "Medical and Sanitary authorities and other citizens who seek to promote the public health." This will afford an opportunity for all who desire, to advise in reference to the work in hand.

If the voluntary contributions of money for the expenses of the Commission are sufficient, it is intended to add to the Commission a Sanitary Engineer, a Microscopist, and a Meteorologist.

The first step in the investigation is, as already stated, an examination into the causes of the commencement and spread of the epidemic, now being prosecuted by the Commission.

The second step is the study of the natural history of the disease itself, which will be undertaken, if the contribution of money warrant.

It is believed that the study of the treatment of the disease should not be added to the labors of the Commission. The contributions of experience in this direction will doubtless be numerous, and may be properly left to the Medical Journals of the country, and to individual reports.

Very Respectfully, JNO. M. WOODWORTH,
Surgeon General U. S. Marine Hospital Service.

WASHINGTON CITY, Oct. 10, 1878.

————:o:————

Items.

—Balata, a substitute for gutta percha, which it closely resembles, has recently attained importance in commerce. It is obtained from a tree that grows upon the banks of the Orinoco and the Amazon rivers of South America, after a manner similar to that of obtaining caoutchouc and gutta percha. The *Boston Journal of Chemistry*, in describing the characters of the substance, says, that though inferior to caoutchouc in extent of its uses, it has points of superiority over gutta percha. It gives an agreeable odor when warmed, is flexible and more elastic than gutta percha, may be joined piece to piece at a temperature of 120° Fahrenheit, but requires 270° for melting, a higher point than for gutta percha. It has various solvents, and will be valuable for insulating purposes.

—A common formula for preparing Hamburg Tea, according to a correspondent of *New Remedies*, is: Senna leaves, eight parts; Manna, four parts; Coriander, one part. Mix.

—Chlorhydrate of pilocarpine, the active principle of the powerful diaphoretic, jaborandi, is quoted at wholesale at forty cents a grain, and is obtainable in Buffalo.

—At the last session of the medical examining board of the U. S. Marine Hospital Service at Washington, in August, thirteen out of thirty-one applicants appeared, and of these, three were accepted and appointed assistant surgeons.

"EYE AND EAR INFIRMARY," OR "OCULIST AND AURIST," BY WAY OF ADVERTISEMENT.—The Medical Society of the State of New York, at the annual meeting held June 18, 1878, passed the following resolution. The subject being presented by the legal proceedings recently instituted in the Niagara County Medical Societies:

"Resolved, That it is a breach of the Code of Medical Ethics of this Society for a member of a County Society, entitled to send delegates to this Society, to use upon signs, bill heads or advertisements, by way of advertising his profession, the words 'Eye and Ear Infirmary,' or 'Oculist and Aurist.'"

—————:O:—————

MR HENRY C. LEA calls attention to the following important works in preparation for early publication.

The National Dispensatory. Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, and including the preparations of the Pharmacopœas of the United States and Great Britain. By Alfred Stillé, M. D., L. L. D., Prof. of Theory and Practice of Med., and of Clinical Med. in the University of Pennsylvania, etc., and John M. Maisch, Ph. D., Prof. of Mat. Med. and Bot. in the Phil. Col. of Pharmacy, Secretary of the Am. Pharm. Association. With 205 illustrations. In one handsome octavo volume of over 1400 pages.

Clinical Manual for the Study of Medical Cases: For the use of Students and Practitioners of Medicine. By James Finlayson, M. D., Phys. and Lect. on Clin. Med. in the Glasgow Western Infir., etc. In one handsome 12mo. vol. of about 500 pp., with 85 illustrations.

The Principles and Practice of Surgery. By John Ashhurst, Jr., M. D., Prof. of Clin. Surg., of Pa.; Surgeon to the Episc. Hosp., Phila. Second and Revised Edition. In one large and handsome 8vo. vol. of about 1000 pages, with about 550 illustrations.

The Principles and Practice of Gynecology, for the Use of Students and Practitioners of Medicine. By Thomas Addis Emmet, M. D., Surgeon to the Woman's Hospital, New York, etc. In one handsome octavo volume of over 800 pages, with numerous illustrations.

The Practice of Surgery. By Thomas Bryant, F. R. C. S., Surgeon to Guy's Hospital. Second American, from the Second and revised English Edition. In one large and very handsome imperial octavo volume of over 1000 pages, with about six hundred engravings on wood.

A System of Human Anatomy: Including its Medical and Surgical Relations. For the Use of Practitioners and Students of Medicine. By Harrison Allen, M. D., Prof. of Physiology in the Univ. of Pa. With an Introductory Chapter on Histology, by E. O. Shakespeare, M. D., Ophthalmologist to the Phila. Hospital. In one large and handsome quarto volume, with several hundred original illustrations on lithographic plates, and numerous wood-cuts in the text.

Manual of Pathological Histology. By V. Cornil, Prof. in the Faculty of

Medicine, Paris, and L. Ranvier, Prof. in the College of France. Translated, with Notes and Additions, by E. O. Shakespeare, M. D., Pathologist and Ophthalmic Surgeon to Philada. Hospital, Lecturer on Refraction and Operative Ophthalmic Surgery in Univ. of Pa. In one very handsome octavo volume of about 600 pages, with over 300 illustrations.

—:o:—

Books Reviewed

Fownes' Manual of Chemistry, Theoretical and Practical. Revised and corrected by HENRY WATTS, B. A., F. R. S., Editor of the Journal of the Chemical Society, etc. New American, from the Twelfth English Edition. Edited by ROBERT BRIDGES, M. D., Professor of Chemistry in the Philadelphia College of Pharmacy. With illustrations. Philadelphia: H. C. Lea. Royal 12mo. pp. 1027.

Nearly thirty years have now elapsed since the death of the original author of this work. Regularly renewed improvement and enlargement has however long maintained the standard excellence of the volume. Mr. Watts, the English reviser, has given many evidences of his distinguished ability in the work he has done upon this edition. An increase of one hundred and seventy pages has been made over the number of the former edition, and this concerns principally the department of organic chemistry. The mechanical execution of the volume is most excellent, and gives it a very inviting appearance. The headings of the sections have been set in heavy-faced type with much advantage. The part relating to atomicity and the laws of chemical combinations have been carefully revised and improved, and these subjects are now presented with great clearness and fulness. There appears here an adaptation to the student's standpoint that is not often secured by writers. The science of chemistry has increased its borders to a wonderful extent, and with this the advantage and necessity has become greater of relying upon such a book as this, whose character for comprehensiveness, systematic treatment and ability is unsurpassed.

Barnes on Diseases of Women. Second American from the Second and Revised London Edition.

This work has long been familiar to the American profession, though the first edition has been long exhaustive. The present edition of this work contains the addition of a chapter on the relations of Bladder and Bowel Disorders to the proper subject matter of the book. New Illustrations have

been added, and when borrowed the source given from which it was taken. The Authors experience constitutes essentially the work, though numerous quotations are given and an index of Authors appended in connection with a very complete index of subjects. The illustration cuts are numerous, well made and instructive. His remarks upon the "*conditions indicating necessity for local examination*" are so suggestive that we take the liberty of quotation.

"There is nothing special in the mode of studying the diseases of women. Just as the ophthalmic surgeon is led to examine the eye because the patient complains of loss or disturbance of its function, or because he feels pain in it, or has some other subjective symptom referred to that organ, so by disturbances of function or some other subjective sign are we led to the discovery of disease of the sexual organs. When the function of an organ is disturbed, the *primâ facie* inference is that the organ itself which constitutes the mechanism by which that function is performed is out of gear. This is not indeed always absolutely true; because an impaired state of the blood, or disordered innervation, or derangement of another organ, may entail the functional disorder which arrests our attention. The genital organs are no exception to this proposition. The functions of the ovaries, uterus, or vagina may be seriously deranged by a state of anæmia or blood-poisoning, by disease of nervous centres, by disease of the heart, lungs, or liver. These functions may be even more seriously affected by mechanical pressure in continuous parts. Still the fact remains that we can hardly appreciate rightly or successfully treat these primary or correlated diseases if we do not take into careful consideration the state of the genital organs themselves. The general or distant affections require to be investigated and treated; but it is not safe to overlook the organs that may be secondarily involved.

It is needless to say that every woman who is ill and seeks advice does not suffer from disorder of the sexual system. She may labor under various constitutional disorders, and under disorders of parts of the body quite independent of the sexual system. On the other hand, general or local disorders may in their course react upon, and induce disorder in, the sexual system. And there are disorders of this special system, commencing in it, and in their turn reacting upon, and inducing disorder in, distant organs or in the general system.

This is the question we have set before us: When a woman presents herself, complaining of certain symptoms, chiefly subjective, some, or perhaps none, referred to the pelvis, how are we to act? Will these subjective symptoms enable us to refer them to their cause, to establish a diagnosis, to give satisfactory indications for treatment? Hardly. We must, therefore, call to our aid the objective signs; we must weight and determine the significance of these before we can arrive at a conclusion at all precise or trustworthy as to the underlying pathological condition. The whole tendency of modern medicine is to subject every organ which manifests functional disorder to direct physical exploration, in order that it may solve the question presented obscurely by the subjective signs. The sound, the probe, the stethoscope, the laryngoscope, the otoscope, the ophthalmoscope, the various forms of speculum, are only so many contrivances for enabling us to project the senses of touch, sight, and hearing into the internal structures. In the case of the skin, all is at once exposed to direct observation; and, as Alibert remarked, we should be glad to have the same advantage in investigating and treating the diseases of the heart, lungs, liver, kidneys, and nervous centres. Why is it that the study of the pathology of the skin and of the eye is invested with such fascinating interest? Those who devote themselves with the greatest zeal and success to this study affirm that it is because the skin and the eye reveal their condition directly to the senses, and thus furnish not only posit-

ive objective signs which the patient can neither suppress nor misrepresent, but also because by this direct observation of the skin and eye they can read and follow, as on a map or on a telegraphic dial, the working of distant organs and of many affections of the general system. Here, then, we see how the reputed special practitioner, turning to account his special experience, often acquires an insight into general pathology denied to those who neglect the lessons they might read upon the visible organs.

This advantage we possess to a great extent of perfection in the case of the pelvic organs. It is by the proper use of this advantage that so great a degree of precision in knowledge, and of success in treatment of diseases of women, has of late years been attained.

And there is one property in a high degree characteristic of the instruments employed in the investigation of the diseases of women of such singular value that it ought to completely silence the objections at one time so passionately urged against them. It is this: the instruments have a therapeutical as well as a diagnostic application; the speculum, for instance, revealing a lesion, often enables the surgeon at once to apply his remedy. Thus treatment follows upon the track of diagnosis, one sitting and one operation serving for both."

Its plain concise comprehensive style, commends the work very highly as a guide book in general practice, while yet the more important subjects in gynecology have received quite full and complete consideration. It seems as a whole well adapted to the wants of students in medicine, as well as to active and experienced practitioners.

Nervous Diseases: Their Description and Treatment. By ALLAN McLANE, Hamilton, M. D., etc, etc. With Fifty-Three Illustrations. Philadelphia: Henry C. Lea. 1878. Buffalo: Theodore Butler, 307 Main Street.

The author tells us that it has been his aim "to produce a concise, practical book," and in this he has met with a very flattering success. His work, while giving thoughtful attention to matters of diagnosis and treatment, at the same time does not fail to take a comprehensive view of the etiology and pathology of nervous affections. Aside from the introduction which treats of the methods of diagnosis and the instruments for diagnosis and treatment, the book is divided into eighteen chapters which are respectively, as follows: Chapter I, Diseases of the Cerebral Meninges; Chapters II to VII, Diseases of the Cerebrum and Cerebellum; Chapter VII, Diseases of the Spinal Meninges; Chapters VIII to XI, inclusive, Diseases of the Spinal Cord; Chapter XII, Bulbar Diseases; Chapters XIII and XIV, Cerebro-Spinal Diseases; Chapters XV to XVIII, Diseases of the Peripheral Nerves. A few pages at the end are occupied by Formulæ.

The introduction contains some valuable instruction upon the methods of examination of patients, and also gives some very concise directions concerning post mortems in cases of nervous disease. This is a subject upon which general practitioners are too often deficient in information, which is only to be obtained, as a rule, in works upon morbid anatomy and pathology unattainable by the majority of physicians. In speaking of the ophthalmoscope in diagnosing cerebral lesions we are glad to observe that Dr. Hamilton has

the bravery and honesty to place a just estimate upon its utter inutility in diagnosing disturbances of the intra-cranial circulation. The author considers Seguin's surface thermometer amply sufficient to detect variations in temperature in various parts of the body. The differential thermo-electric calorimeter of Sombard and other complicated and expensive instruments are spoken of as practically useless except for experimental purposes. We wish the author had given us his opinion of the value of Lombard's or any other instrument in detecting cerebral congestion by differences in temperature on the exterior of the cranium. The dynamometer is described, and one of the author's inventions figured, the dynamograph and the myograph are also described. The chapter on Diseases of the Membranes is a careful and intelligent consideration of the subject of which the article on hæmatoma of the Dura-Mater is not the least interesting. No mention is made of sarcoma of the Dura-Mater. Cerebral hyperæmia is well treated but its importance or frequency is not exaggerated as by some other authors, the same may be said also of cerebral anæmia. Nearly thirty pages are devoted to cerebral hemorrhage. On page 93 the author endorses the view of Gower and others, when he says: "Neither clinical history nor supposed pathology of athetosis affords ground for separating it from other forms of disordered movement commonly seen after hemiplegia, but any one of which might occur in the primary affections." The tendency is already too great to invent new names and classifications in nervous diseases, and athetosis must receive more support to its claims as a distinct disease than it has thus far to be received by the profession as such. Strange to say, however, several writers have followed in the track of Dr. Hammond in describing the well known occurrence of disordered and uncontrolled movement of the fingers and toes, as a new disease. An English writer in speaking of these reported cases well says that the disease, inability to control the fingers, seems to have taken possession of the fingers of a certain number of medical writers. The article on Epilepsy is good and very properly takes strong ground against the routine treatment into which many practitioners have fallen. Hysteria is well treated. The article on hystero epilepsy has already been published in the *American Journal of Medical Science*. Diseases of the peripheral nerves are satisfactorily considered. The formulæ which complete the volume are in the main well selected. The illustrations which adorn the volume are judiciously selected and well executed.

We regret that in too many instances the author's style is marred by evidences of hasty writing, and a few inelegant expressions have crept into the text. There are also a few noticeable typographical errors. A "stiff dose" does not sound well, and, although the word is used by an eminent New York surgical writer, we do not like the expression "contractured." On the whole however this work is a valuable one, especially as it does not mislead the reader by given results attained or attainable by no one but the author.

Books and Pamphlets Received.

Cyclopedia of the Practice of Medicine, edited by Dr. H. Von Ziemssen, Professor of Clinical Medicine in Munich, Bavaria. Vol. XVII.

General Anomalies of Nutrition and Poisons. Vol. XIII.

Diseases of the Spinal Cord and Medulla Oblongata. New York: Wm. Wood & Co.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M. D., F. R. C. P., with notes and additions, Robert P. Harris, M. D. H. Lea: Philadelphia. Buffalo: T. H. Butler.

A Practical Treatise on the Medical and Surgical uses of Electricity. By George M. Beard, A. M., M. D., and A. D. Rockwell, A. M., M. D. New York: Wm. Wood & Co.

The Cell Doctrine; its history and present state. By James Tyson, M. D. Philadelphia: Lindsay & Blakiston, 1878. Buffalo: T. H. Butler.

A Guide to the Practical Examination of Urine. By James Tyson, M. D. Philadelphia: Lindsay & Blakiston. Buffalo: T. H. Butler.

A Monograph on the Treatment of Diphtheria, a new Etiology and Pathology. By William Reiler, A. M., M. D. J. B. Lippencott & Co. Philadelphia, 1878.

Sub-Sulphate of Iron as an Antiseptic in the Surgery of the Pelvis. By H. P. C. Wilson, M. D. Baltimore, Md.

Medical Missions at Home and Abroad. By J. G. Kerr, M. D.

Proceedings of the Medical Society of the State of Pennsylvania, in relation to the Hospital for Insane at Dixmont.

Notes from a Lecture. By Dr. Manuel Dagnino, of Caracas, on the treatment of Yellow Fever. Translated by Antonio de Tajada.

Removal of Naso-Pharyngeal Polypus by temporary depression of both upper jaws. By L. McLane Tiffany, M. D.

The Brain and Nervous System in relation to teaching and learning. By J. C. Reeve, M. D.

Variola; Its Causes, Nature and Prophylaxis, and the dangers of Vaccination. By C. Spinzig, M. D.

Treatment of Fracture of the Shaft of the Femur. By Franklin Staples, of Winona, Minn.

On the use of the Solid Rubber Bandage in Eczema and Ulcers of the Leg. By L. Duncan Bulkley, A. M., M. D.

On Diet and Hygiene in Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D.

Annual Address delivered before the American Academy of Medicine. By Frank H. Hamilton, A. M., M. D., L. L. D.

Urethral Stricture. By Thomas Brown, M. D.

Address before the American Medical Association at Buffalo, N. Y. By T. G. Richardson, M. D.

Ecole de Medicine et de Chirurgie de Montreal.

Pocket Therapeutics and Dose-Book. By Joseph Stewart, Jr., B. A., M. D. Detroit, Mich.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

DECEMBER, 1878.

No. 5.

Original Communications.

—:O:—

ART. I.—Pulmonary Consumption. By WILLIS E. FORD, M. D.,
Assistant Physician N. Y. State Lunatic Asylum, Utica, N. Y.
Read before the Oneida County Medical Society, October 8th,
1878.

It is estimated that pulmonary consumption is the cause of one-seventh of all the deaths that occur. The census reports show that from 1850 to 1870, the general death rate diminished considerably, though the proportion of deaths from consumption, as compared with all other causes, was larger in 1870 than in 1850. In 1870, there were 253 deaths from consumption to every 100,000 inhabitants in the New England States. These statistics also show that in the North-Eastern States consumption is more prevalent on the sea board, along the shores of Lake Erie, Lake Ontario and the St. Lawrence, and in the Mohawk Valley. It is less prevalent in Eastern and Southern New York, and west of the Connecticut river. In our own city during the last two years, more than fourteen per cent. of all deaths were from consumption. This is truly a terrible exhibit of facts, and this scourge, more to be dreaded than cholera or yellow fever, justly claims a large share of the attention of physicians.

Of late years, real advances have been made in our knowledge of the nature and proper management of the disease—advances due in part to more accurate statistics of a large number of cases from which deductions could be made as to the influence of climate, of certain occupations, character of soil in various localities, etc.; while it is largely due to a more accurate knowledge of the pathology of the disease.

I think I may safely say that the old theory that tubercle is the sole cause of chronic degenerative diseases of the lungs, has lost the support of the larger part of the profession, and that the inflammatory nature of most of these diseases is pretty thoroughly established. To the Germans we are largely indebted for the original investigations that turned us toward this latter theory. The art of physical diagnosis now enables us to detect slight changes in the lungs and to be tolerably certain as to the character of these changes, and therefore enables us to make distinctions, that a few years ago were impossible.

If it be true that most of the cases of consumption have their origin in local and inflammatory processes, and not in the insidious deposit of new formation cells, a result of inheritance; then we must believe that early treatment and proper care will effect a cure in a certain number of cases, and in other cases will arrest the progress of the disease and prevent its full development.

There is a vast amount of literature on this subject, and I think that any one who will take the pains to look it up, will be convinced that the preponderance of evidence tends to establish the inflammatory nature of the disease, and that of late, the number of cases found to be strictly tubercular, and therefore hopeless from the first, has been steadily diminishing.

The processes of inflammation are so varied and result in deposits which may afterward undergo so many changes, that they may explain all the morbid appearances found in the lungs of those who have died of phthisis in any of its stages, excepting in a few rare cases. It seems to me that the general acceptance of this theory on the part of physicians is a matter of great importance, not only as regards the treatment of recognized cases of developing phthisis, but also as regards the prevention of the trouble altogether. Rein-

hardt asserted as early as in 1847, that the so-called tubercle may originate from pus cells, and thereby he deprived it of importance. By 1850, he had established the fact that many substances hitherto regarded as tuberculous, were identical with inflammatory products. At about this time Virchow began to teach that caseous metamorphosis, the tubercularization, was a general process of necrobiosis of tissues. He limited the term tubercle to the miliary tubercle, which he still regards as a new formation. Baylis' view is that the miliary tubercle plays but a secondary part in phthisis, is developed in the later stages of the disease, and is rapid in its course when once the deposit begins. Niemeyer, whose teachings have done so much toward the advancement of our knowledge of this disease, holds the same view. Carswell, a writer of note, describes the same forms of phthisis. In this country, Dr. A. L. Loomis has for years taught that phthisis, aside from miliary tuberculosis, has a local and inflammatory origin, and in its early stages is, therefore curable, and I think that among the best observers this belief is now pretty generally entertained.

As to the causation of consumption, we can safely say, the more we are assured of its local and inflammatory nature, the less importance does hereditary transmission assume. Niemeyer says: "I do not hesitate to say, in spite of all assertions to the contrary, that it is by no means sufficiently proved that tuberculosis, in the strictest sense, is an inheritable disease." Again: "Quite as decidedly as we have opposed the evidence that tuberculosis is inheritable, must we pronounce in favor of a frequent occurrence of an inherited disposition to pulmonary phthisis." Ruehle, in Ziemssens' *Cyclopedia*, advocates the theory of the inheritability of phthisis, but says: "I believe that systematic and persistent observation of judicious rules of life may overcome such an inherited tendency." In the report of the State Board of Health of Massachusetts for 1873, a valuable document, is given the opinions of 210 physicians from different parts of the State, on the main points of interest concerning consumption. To the first question, "Is consumption caused or promoted by hereditary influences," 205 answered in the affirmative, one in the negative, and four did not declare. To the second question, "Can consumption apparently be prevented from

occurring in children hereditarily predisposed to the malady?" 126 answered in the affirmative, 20 in the negative, 15 that it "can be retarded," 10 were doubtful, and 45 did not declare. These statements from the same men, would seem to be somewhat conflicting so far as the real first cause of the malady is concerned. Common observation shows that the children of parents enfeebled by this slowly exhausting disease, are liable to be weak, to have but little power of resisting the encroachments of disease, and therefore, to fall an easy prey to consumption. This is equally true, however, concerning the offspring of parents suffering from any other progressive and equally exhausting disease, and also regarding the children of drunkards. It is by no means true that the majority of children of phthisical parents die of the same disease. These facts should of course induce consumptive parents so unfortunate as to have children, to give them the best hygienic surroundings, and it is the duty of the physician to assure them that with proper care the disease may be avoided.

The common impression that "catching cold" is the great cause of consumption, is not warranted by the facts. Those influences however, that are followed by bronchial catarrh and hyperæmia of the lungs, and all slow pneumonic processes, are most dangerous. I need only mention mechanical irritation, caused by the inhalation of irritating substances, such as coal dust, copper and iron filings, or the irritation and inflammation caused by retention of blood in the air cells after a bronchial or pulmonary hemorrhage. I should like to say, however, that many hemorrhages ought to be looked upon as causes of phthisis rather than the evidence of unrecognized phthisis.

A chapter might be written and profitably discussed here, on the influence of excessive muscular strain and unusual muscular development in causing consumption. In these times when physical training is carried to such an excess by many, and great muscular development is said to prevent disease, it is certainly worth while to call attention to the fact that men who keep themselves in long and severe training, and reach a condition of great muscular development, are extremely liable to lung disease. The proportion of prize fighters, lifters of heavy weights, leapers, etc., who die of this

disease is very large. The severe and oft-repeated congestions of the lungs, caused by muscular strain or prolonged physical exercise, not unfrequently results in a hemorrhage at the time, or the capillaries of the lungs may be so engorged as to never be able to return to their normal condition. The number of persons injured by the health-lift is not small, while its originator, a Harvard man, who reached an enormous muscular development, has since died of consumption.

Here we may mention also the pernicious practice of inflating the lungs to their utmost capacity, and of striking the chest with the fist in order to "strengthen the lungs," indulged in by weak people.

The question of climate is a very important one. It was formerly thought that a warm and dry atmosphere were the essentials. It is now known, however, that cold is not to be dreaded, nor does the amount of rainfall of a region seem to exercise any marked influence in the production of the disease. That kind of moisture which is caused by evaporation is most deleterious, however. Laennec states that the dampness arising from such soil as prevents perfect drainage, is one of the most certain developing causes of phthisis, and he mentions a locality having such a soil in which the dampness was so constant, and of such a character that more than two-thirds of the inhabitants died of phthisis. Dr. Bowditch, of Boston, has made a careful comparison of statistics furnished by physicians in all parts of Massachusetts, and from this, shows that among the prominent causes of consumption is exposure to soil moisture. In England, in 1865 and 1866, inquiries were made under Government authority, into the effects of drainage works, and other sanitary regulations designed to promote public health. Twenty-four towns were selected in which improved drainage had been established, and it appears that while the general death rate was smaller, the proportion of deaths from consumption had been strikingly diminished. The chief medical officer in his report says "the noted and most important conclusion suggests itself, that the drying of the soil, which in most cases accompanied the laying of main sewers in the improved towns, has led to the diminution, more or less considerable, of phthisis." In this connection one cannot help won-

dering if in this city, with the extraordinarily high percentage of deaths from phthisis, something more could not be done to prevent the scourge.

Statistics show that a soil composed of sand or gravel or porous rocks, gives to the inhabitants of the region comparative immunity from the disease, as compared with a clay soil, or one composed of impervious rock, which allows all the water collected to evaporate back again into the air.

Mere altitude alone seems to exercise but little influence on the advent or course of the disease. While it cannot be denied that regions at an elevation of 1,800 feet above the sea level are generally more free from the disease, yet it is not so much due to a lessened atmospheric pressure as it is to the purity of the air, its freedom from dust and irritating substances. Dr. Loomis says: "Experience has shown me no place where phthisical invalids in all stages of the disease do worse than among the Catskill Mountains. Without exception, in those phthisical invalids under my observation who have resorted to this mountain range, the disease has made much more progress than in any other locality. I find similar testimony given by other observers in regard to other mountain regions."

In general, all causes that tend to depress vitality may act as predisposing causes of consumption. Poor and insufficient food, overwork, confinement in over-crowded, dusty and ill-ventilated rooms, and especially all conditions tending to exhaustion of the nervous system, favor the advent of this disease. Every one familiar with hospital practice must have observed the unusually large number of deaths from phthisis among patients with chronic nervous disorders, and also among those given to certain excesses tending to rapid exhaustion of nervous force. I was surprised when in a general hospital to observe that the common cause of death among the large number of prostitutes treated there, was consumption.

We may group all cases of phthisis under three general heads: acute miliary tuberculosis, catarrhal phthisis, and fibrous phthisis.

Acute miliary tuberculosis is a comparatively rare disease, and runs its course in about six weeks. The symptoms are rather obscure and have a strong resemblance to typhoid fever. The development of miliary tubercles in the course of an ordinary phthisis,

is not rare, and Niemeyer says: "The possibility, that in the course of a pulmonary phthisis caused by pneumonic processes a tuberculosis may be developed, must be constantly kept in view." And again: "The greatest danger to most phthisical patients is the development of tubercles." I am very fortunate to-day in being able to present you some fine specimens of miliary tubercles, and desire to call your attention to the specimens mounted by Dr. Deecke for microscopic observation. A careful comparison of the specimens before you will, I think, convince every one of the radical difference between disease due to this neoplasm and the common forms of consumption.

The following case of acute miliary tuberculosis is rather a typical one. A man aged 23, a laborer, came into my ward in Hospital in the summer of 1873 with a history of two weeks illness. His condition then, together with his history, pointed to typhoid fever, or at least to some continued fever. He had a temperature of 103 and a pulse of 120, and though he was a strongly built man and in good flesh at the time, he was greatly prostrated, and his face showed great anxiety. His breathing was labored and about 24 to the minute, but an examination of his lungs failed to reveal anything very definite, more than a slight roughness of the smaller bronchi and a wavy inspiration. His temperature for a week did not vary much, and his symptoms did not change, and we were able to exclude the fevers. After this he coughed a little, and in the third week his breathing was more labored, and his temperature ranged higher. He lived something over a month after coming into the Hospital, and his entire illness only lasted from six weeks to two months. I am unable to give the facts regarding heredity in this case. An autopsy revealed miliary tubercles, and in the lung though all the tissue was closely studded with them, there was no large aggregations which could indicate the real nature of the disease during life. There was no cavity in the lung, and the appearance throughout was about like the specimen of miliary tubercle before you.

This specimen of miliary tubercle is from a patient with a similar history. A man aged 29, of good physical development, without hereditary taint, with no history of previous lung trouble, began to

feel badly and took to the bed about the first of February last. He had no chill, no cough, and when his temperature began to rise his physician was somewhat puzzled to explain his condition. He died on the third of March, and it was only a short time before his death that his real condition was suspected. There were no large aggregations of tubercles, there were no cavities in the lungs, nor were there any other unusual appearances, excepting miliary tubercles filling the lungs and scattered through other organs. You will observe under the microscope that certain of the tubercles are nearly spherical, and show concentric layers composed of a material somewhat resembling pavement epithelium. These seem to be the younger formations while other spots are irregular in outline, and seem to be accretions of several small growths, and you will notice that some of these are breaking down from the centre. The mounted specimens before you—taken from other organs have precisely the same outline, the same size and the same structure. These neoplasms differ in structure from that of any normal tissue and from all other pathological conditions. They are so distinctive that it is impossible that the masses found in the lungs of phthisical patients ordinarily could be mistaken for these new formation cells.

In catarrhal phthisis the primary changes occur in the cavities of the air cells and the bronchi, and are epithelial and cellular in their nature.

In fibrous phthisis the primary changes occur in the bronchial and alveolar connective tissues and are connective tissue hyperplasias. These are the ordinary forms of consumption, and are undoubtedly local in their origin. The specimens before you will illustrate almost every stage of the disease.

In June last, I had the opportunity of making an autopsy on a phthisical patient, aged 60, and I am able to-day to present you the specimens together with a very accurate history of her illness.

As early as 1852 the patient had a pulmonary or bronchial hemorrhage. She was strong and vigorous, and of a healthy family, and under good treatment seemed to recover. There remained some bronchial catarrh however, and she always had a winter cough. She got along very well, and was able to attend to her household duties up to 1869, when she had another hemorrhage, and consoli-

dation of lower lobe of lung followed. Then began a slow process of breaking down of lung tissues. Fine rales could be heard about the spot of consolidation, and expectoration was profuse; stimulation, good diet, and quinine was the treatment which was persisted in for more than a year, the disease seemed to limit itself and her symptoms, excepting dyspnœa gradually improved. Hypertrophy of the heart followed. She was never very strong after this, though able to be about the house most of the time. She had a cough and great dyspnœa on the slightest exertion during the remainder of her life, though she continued in fair flesh. Her death was sudden.

An autopsy revealed an extensive sack of yellowish creamy matter occupying nearly the whole of the left thoracic cavity. This fluid measured 20 ounces, was not offensive, and as we opened the sack a drachm or more of clear oil floated on the top. I give below an analysis of the fluid, made by Dr. Deecke:

Water 16 ounces, and solid matter $3\frac{1}{2}$ ounces.

The solid matter consisted of :

Phosphate of Lime	1 $\frac{1}{4}$ ounces,
Chloride of sodium,	41 grains,
Grape Sugar,	21 “
Cholesterine,	1 $\frac{1}{8}$ ounces,
Caseine,	34 grains,
Fat,	126 “
Dry Albumen,	16 “
Insoluble inorganic matter,	44 “

A portion of the thick, well formed membrane which enclosed this mass is here exhibited.

I think this case especially interesting as showing the conservative tendency of the disease. The patient had repeated hemorrhages, and finally extensive destruction of lung tissue, and yet the process limited itself—the products of inflammation became encysted and innocuous, and her life was prolonged for many years.

Another case now under observation is that of a woman aged 51, who, on the 15th of March, 1875, had a chill, and the usual symptoms of pneumonia. At 2 P. M. on the 17th, her temperature reached its maximum, 104 $\frac{1}{2}$ degrees. The lower and middle lobes of the right lung were affected. After running an ordinary

course, resolution was not completed in the middle lobe, and there remained a chronic catarrhal pneumonia. Some six months after the first attack, a cavity was formed, after which the extent of bronchial catarrh was somewhat less. Cicatrization has taken place, and the patient is now in a very comfortable condition, though there is a slight cough and a considerable dyspnoea on exertion. She has gone through one attack of insanity since then, and recovered without any extension of lung trouble. The treatment in this case during the latter period of resolution from pneumonia, and during the slow degenerative changes later, was quinine, and stimulation carried to the extent of reducing the temperature and preventing night sweating.

I will here mention a case which was under my care for some time, similar to the last in the advent and course of the pneumonia, excepting that resolution did not begin in the middle lobe (the right lung only as in the previous case was affected) and dullness and absence of respiratory murmur continued for more than two months. The temperature during this time ranged from 102 to 104 degrees, and we were assured there was the formation of a large amount of pus. He took during some of this time a quart of brandy a day. Suddenly one day, during a paroxysm of coughing, he expelled a plug from the large bronchus leading to the affected lobe, and immediately there gushed out more than a pint of offensive pus. The plug I saw, and it was cylindrical, about two inches in length, by three-quarters of an inch in diameter, composed of exfoliated mucous membrane and inspissated mucous.

His temperature immediately went down, his appetite returned, and convalescence began. There remained some bronchial catarrh for a few months, but this soon subsided.

This case is a very interesting one, and unique so far as I know, and I believe his recovery was largely due to the use of alcohol, in preventing rapid tissue changes, and especially to its local action in hardening the tissues as it was exhaled in the breath, thus avoiding extensive degeneration of lung tissue.

Another case of recovery was that of a man aged 33, an apothecary, without hereditary taint, who some ten years ago had pleurisy of the right side, and recovered and remained well up to

December, 1875. He was then somewhat run down in general health, was confined rather closely to his business and worked hard. He had had some pain under his right clavical for a few days, and a dry irritating cough, and one morning before getting up, began to spit blood. The hemorrhage was not a large one, but the patient was much prostrated afterwards, and when I saw him a few days later he had a temperature of 102, with a pulse of 110, and was restless, sleepless, and much depressed about his condition. The site of the trouble was in the apex of the right lung, and a catarrhal pneumonic process followed with profuse muco-purulent sputa, night sweats, and a temperature ranging from 100 to 102 degrees. A very appreciable consolidation of lung tissue resulted, but no further hemorrhage occurred and after two months the patient's general condition began to improve. He was so thoroughly impressed with the necessity of proper nutrition and care that he did not require urging to continue his treatment for nearly a year. The consolidation disappeared by a slow process of liquifaction and absorption from the circumference, and for a year and a half he has been healthy and strong.

There is no doubt but that many of these cases have a tendency to self limitation and to repair. The judicious use of quinine in cases where there is a rapid formation of pus, or rapid cell proliferation, promises much in retarding the processes of the inflammation and preventing serious damage to lung tissue. It seems to me that the discriminate, and yet in some cases, very free administration of alcohol promises more than we have been accustomed to think it capable of accomplishing. In lowering temperature, in retarding retrograde metamorphosis, thus taking temporarily the place of food, it has long been recognized as an efficient agent. But it is reasonable to suppose that in some cases the local action of alcohol in hardening the tissues through which it passes, from the thin walls of the capillaries of the lungs into the breath, may prevent the softening of the tissue and prevent the formation of extensive cavities. Alcohol undergoes no digestive changes within the body, and is therefore as active when exhaled from the lungs as if it had never been within the body. In cases of rapid emaciation in connection with a high tempera-

ture, the inunction of the whole body with olive oil or cod liver oil, gives a vast amount of comfort and prevents, in a measure, the rapid wasting. This practice of inunction so common among the ancients, is less popular now than it ought to be.

The practice of sending phthysical patients away in search of health is becoming so common, that the question of locality is a very important one. The ancient custom was for phthysical patients to go to the sea shore. We now know that this is the worst place in the world for those in whom we wish to arrest the process of breaking down of tissue. Only those advanced in life or where the slow process taking place within the lung needs stimulating, do well at the sea shore. Of late the fashion has been to resort to the mountains, though the indications in every case are by no means met by the change. Certain catarrhal conditions are benefited by mountain air, though it is probable that the purity of the air in these regions, its freedom from germs of all kinds, is the one all important restorative agent and that mere altitude is of secondary importance. In selecting a locality for those inclined to develop this disease, the important consideration should undoubtedly be that of soil. Freedom from soil moisture is a feature of any locality that should especially recommend it. It has long been known that phthical patients do well in the midst of pine forests. It was thought that the inhalation of air in which the balsams of these evergreen trees could be detected, exerted a curative influence. More recent investigations have shown however, that the turpentine exhaled from these pine or hemlock forests possesses the power to a greater degree than any other known substance of setting ozone free. Ozone itself, inhaled into the lungs possesses no curative power, but it does destroy the germs of the atmosphere, and noxious gasses, and thus renders the air especially salubrious. On this account the pine regions of Georgia and North Carolina have become of late popular resorts for those with affections of the lungs.

There must be a careful discrimination of cases, however, for the profession is by no means agreed upon the question of climate, and many invalids are sent away every year who would be far better off at home. Nothing can be expected from a change of climate

with patients having true tuberculosis, and it is cruel to deprive persons in the later stages of phthisis of the comforts of their homes. In the fourth biennial report of the Board of Health of California, for the years 1876 and 1877, Dr. Hatch, the permanent secretary of the board, has a valuable paper on the "Relations of the Climate of California to Consumption." He says: "The premonitory stage of phthisis, or the first stage of its actual development, is the only one in which climate may be safely relied upon. That some cases in the second stage may be greatly benefited, especially when the nutritive processes are not seriously impaired, that a few may secure an apparently permanent arrest of the disease, and enjoy good health for many years; but that the climate of California, while it may for a time seem to inspire hope, offers in reality no very strong inducement to those lapsing, or who have already passed into the third stage of the disease. That the remedy, if found beneficial, must be continued from year to year until the restoration of the nutritive processes is complete, and the progress of disease, as determined by physical signs, appears to be arrested."

—:o:—

ART. II.—Iodide of Potassium in Syphilis.—Clinical Remarks.

By Prof. J. F. MINER. Reported with private Surgical Cases by C. A. WALL, B. S., a member of the Class.

GENTLEMEN: I present before you, first this A. M., a man sent here for the operation for Tracheotomy—Syphilitic Laryngitis—having so completely interrupted respiration that on entering the Hospital three days ago it seemed impossible for him to live until the time of our clinic, unless immediately relieved; but as the dyspnoea had come upon him gradually, and he had become accustomed to it, he himself thought he could wait until this morning. You will observe he has long been a victim of syphilis; the bones of the nose have necrosed and been discharged—allowing of the deformity, you observe so characteristic of syphilitic necrosis of the bones of the nose. The odor of this patient is also pathognomonic of syphilis. He has been under treatment by various physicians three years, with the results you observe. Possibly he has been too poor to purchase proper medicine for his disease if it has really

been prescribed for him. His condition is pitiable in the extreme, and his physicians have sent him here as a last resort to get rid of him, of course, and have recommended tracheotomy.

Tracheotomy was first suggested by Prof. Rochester, and I have regarded it as offering the only possible opportunity to fully test the value of proper medication—of testing what medicine can do for syphilis, as without relief he must soon die of suffocation. Upon his entrance I advised 20 grs. iod. potass. three times daily, proposing to increase it until satisfactory results followed; but I did not expect to see so great relief in so short time. He now breathes with comparative comfort, and is willing to try still longer what medicine will do for him; and though I had no doubt of the necessity of tracheotomy three days ago, I this morning think it may be avoided. His voice is now so restored that he articulates quite distinctly. His countenance has changed, so that he looks cheerful and hopeful, instead of the expression of despair, characterizing the feeling of strangulation. You would like to witness the operation of tracheotomy, but you will appreciate how much more valuable the lesson. If I could select from the world an interesting and instructive case in Operative Surgery (?) for your observation, I would select this most signally successful operation of medicine in syphilis. He is pale, thin, weak, dejected—ready for any operation offering even temporary relief. He is deformed by his disease, in constant pain, preventing sleep and rest. He catches at the last straw of tracheotomy, thus hoping to gain time for better effects of medicine. Twenty grains is a small dose compared with what, if necessary, it is proper to prescribe. Mercury is a specific in the secondary stage of syphilis. Iodine—Iodide Potassium—is equally specific in the tertiary form.

I have not yet described to you the stages of syphilis, but most of you understand my meaning. Mercury and Iodine properly prescribed are curative of syphilis. Since our term commenced I have been called to advise in several cases as nearly hopeless as this before you, and in every case the effects of *adequate* doses of Iodide of Potassium was as signally successful. One of our citizens says he would have been willing to have paid \$50,000 for the advice if he

could thereby have saved his deformity. Caries of the bones of the nose is common in syphilis—is to be watched for and dreaded. And, gentlemen, after adequate experience I can assure you that almost always it can be prevented, and when present *can be cured*.

Ah! That word *cure* is a bad word. If you use it much it will show that you are a quack. Good, honest, intelligent physicians rarely have place for it, but it is more truthfully used in syphilitic disease than anywhere else in medicine, though a distinguished Vienna Professor says to his class: "If a patient contract syphilis, talk of his *cure* as much as you like, he will die syphilitic, and his soul will come up in the judgment with syphilis." Which simply means, it cannot be wholly removed from the general system so as not to be liable to again appear. As to its being extended to the soul, I am not so clear. Many syphilitic patients will appear in the judgment with as pure a soul as will ever go from earth to heaven and I do not think the Vienna Professor designed anything more than that *syphilis is incurable*.

I must not detain you longer than to say that *adequate* doses of Iodide of Potassium will almost invariably arrest and control syphilis in its tertiary form, and by *adequate* I mean from twenty to one hundred grains given three times daily, where smaller quantities do not answer the purpose. This looks heroic, but it is safe and often very desirable; and given when the stomach contains food or fluid it does not cause distress or other inconvenience. It may produce the condition called Iodism, but continue, or, if necessary, *increase* your medicine. Such patients have a thousand times more to fear from syphilis than "iodism," and the iodism will soon pass off itself.

Tell your associate physicians what I say of this, and many of them will think I am insane on this subject, but I know of what I speak. I speak as one having "authority and not as the scribes." Ample experience convinces me I am correct in this conclusion of the proper dose of Iodide of Potassium, and you may safely adopt it until experience teaches you that it is *unnecessary* or *unsafe*. I am sustained in all this by some of the best authors, though differences of opinion are freely expressed by others. And, you need not decide this morning, where "Doctors disagree."

P. S. (One week later.)

Gentlemen.—I am now able to show you the final result in our patient, who was so greatly relieved by the Iodide of Potass, and was before you at our last Clinic. He continued comfortable until yesterday A. M., but was observed to grow rapidly worse through the day. House Physicians observed the rapidly increasing dyspnoea, but until night thought our Clinic would be ample time for interference should any be advisable. At 12 o'clock, night, they saw he was rapidly failing and sent message for me. In a few minutes more before my arrival he was dead, and we propose to show you the changes in the Larynx, which have resulted in death. (After dissection) you will observe as I pass this specimen, how all the inner surface is thickened and tube closed. All this thickened ulcerated condition we expected to find, but we also observe a necrosed piece of bone, furnished by ossification of the anterior laryngeal cartilage. This dead bone is the effect of Syphilis, as you remember the nasal bones have preceded this one and escaped. Others were following the same course. Tracheotomy as proposed at our last Clinic, would have been proper, might have given time for action of remedies and have prolonged life. The specimen is instructive in the highest degree; it shows you what awful changes syphilis is capable of producing and how it may be the direct cause of death.

CASE IX.—Eddie —, four years of age, from German parentage, is deformed in both hands, but as the left seemed to present the most favorable condition it was operated upon June 24th, 1878. The little finger and thumb were normal, while the middle finger was wanting, the head of the corresponding metacarpal bone articulating with a peculiar compound bone which was joined with the index and ring fingers. The bone was V shaped and formed by three centers of ossification, two for the ring finger portion and one for the index. The former was one and one-half inches in length, the latter one inch. The shape of the bone rendered it impossible to approximate the ring and index finger. The difference between the heads of the first phalanx of each finger was two inches. This peculiar bone was removed, the parts brought together with interrupted sutures and a bandage thrown around

the hand. It soon healed and the hand is very useful, perfect in all but the middle finger. The right hand was not operated upon. The thumb presented two sets of phalanges, parallel but frail, and neither set was strong enough to give the necessary strength to the thumb.

CASE X.—*Dislocation of the ankle outwards.* March 26th, 1878, Emma S., aged eight, while playing upon a pile of lumber slipped, carrying a number of pieces with her. The weight of these fell upon her ankle, and as both the foot and leg were supported the force was sufficient to dislocate the ankle outwardly. She was immediately released, and in less than twenty minutes after the accident the ankle was returned to its place. There was little or no exudation, and no signs of serious injury to ligamental structures. The next day she was hopping around without pain, and in two weeks had forgotten which foot had been hurt. There was no doubt as to the dislocation as the foot lay at right angles to the leg, and would not yield until after considerable force had been applied. This is a rare case of dislocation, ranking with those of the wrists. Dr. Miner presented to the Buffalo Medical Association a case of the latter, (see Buffalo Medical Journal, Vol. XVIII, No. 3, p. 95), in which it was mistaken for a Colles fracture.

—————:o:—————

Miscellaneous.

The Treatment of Ulcers with a Saturated Solution of Chlorate of Potassium.

BY T. M. ROCHESTER, M. D., BROOKLYN, N. Y.

I wish to call attention to the treatment of ulcers, ulcerations, and suppurating wounds and sores in general, by the use of a saturated solution of chlorate of potassium. I have said suppurating sores in general, and so it will be found beneficial in all of these; but it is especially useful in that particular class of old, unhealthy, indolent ulcers which are one of the opprobria of our art. Let me describe briefly my plan of treatment in one of these cases.

Suppose, for example, a patient comes with an old, indolent ulcer on the leg, which is the most frequent situation. The sore is foul,

unhealthy in appearance, and ill-smelling. The limb is usually much swollen, granulation is at a stand-still, the ulcer may even be phagedenic, and the discharge is thin, sanious and offensive. As a rule, the patient has the sore covered with some salve or ointment, and the limb is either bandaged tightly or strapped with adhesive plaster.

In a case of this kind I immediately remove all bandages and constrictions, and direct that they shall not be again applied. The ulcer is then carefully and gently washed with warm water, after which it is ordered to be gently douched five or six times a day with a saturated solution of chlorate of potassium; my usual prescription is: Take of potassii chloratis, 2 drachms; aquæ puræ, one pint. The best method of doing this is to fill a sponge with the solution, and then slowly press it out, holding it within an inch or two of the sore. After the ulcer has been quite freely douched, a thin layer of the unguentum zinci oxidi should be spread around the edges. It is then to be completely covered with a piece of oiled lint, kept in place by a bandage applied as loosely as possible. The douching should be repeated, at first, five or six times daily; the zinc ointment need not be used more than twice in the twenty-four hours. At the end of two or three days the ulcer will begin to assume a healthy appearance, and commence to granulate nicely. When this improvement is noticed, the number of douchings should be decreased—otherwise the granulations will become pale and flabby. As the sore fills up and begins to heal over around the edges, the zinc ointment should be increased, so as to cover the new skin. This serves to protect and strengthen it. So, too, it is well to continue its use for a few days after the ulcer has completely skinned over.

Such, in brief, is my mode of dealing with these cases; and it is with the keenest satisfaction that I have watched case after case of unhealthy, indolent, varicose or specific ulcerations, which have defied one treatment after another, and worn out the patience of physician and patient alike, take on a healthy appearance after two or three days of this treatment, and thence proceed rapidly to a complete recovery. During the past fifteen months I have seen used and treated by this plan between ninety and one hundred cases, and in no single instance have failed to see immediate and continued improvement, and, when they could be kept track of, completely healing in one to six weeks.

This number of cases embraces not only the ordinary indolent ulcers, but also syphilitic, varicose, and one case which I believe was carcinomatous in its character.

Several of my cases had had scraping and skin-grafting tried in vain. Where they were syphilitic, constitutional treatment had been and was used alone without effect; but rapid healing immediately took place when the douching with the saturated solution of chlorate of potassium was combined with it.

There is another point that is worth mentioning, and that is, that this douching is entirely painless after a few applications. It may smart a little the first or second time, but even then it is so slight as not to be taken into consideration. Now to mention a few cases, as it would only be tedious to give them all. The following are fair samples of the whole, as they are taken entirely at random and not selected at all, with the exception of the first, which is a very marked example of the efficacy of this treatment.

CASE.—C. K., male, aged 29, was sent to the hospital to have leg amputated at the middle third of the thigh, as a last resort. Had an ulcer three inches by one and a half on the external, lateral aspect of the leg. The limb was swollen to twice the natural size, and gangrenous in appearance as far as the lower third of the thigh. The discharge from the ulcer was thin, sanious and very fetid. There was no history of syphilis, either congenital or acquired. Had been getting gradually worse for over a year, although he had tried almost everything, and seen a number of physicians in regard to it. He walked with great pain and difficulty. The solution of chlorate of potassium was used, and by the third day a decided improvement was noticed. The swelling of the leg had decreased, and the ulcer began to granulate nicely. At this time he had an attack of delirium tremens, which lasted four or five days; but notwithstanding this shock to the nervous system, the leg continued to improve *visibly* from day to day. At the end of four weeks the limb was of the normal size and appearance, the ulcer healthy, and about as large as a three cent piece. The patient could walk without any inconvenience, and insisted on leaving the hospital, to fill the position of organist in a Catholic church, although strongly advised not to. He returned after a week or two with the leg slightly swollen, and the ulcer about the size of a silver quarter. The treatment was resumed, and he was discharged cured in ten days.

CASE.—A. G., female, aged 30. Syphilitic. Large deep ulcer on the posterior aspect of leg. Discharge excessively foul and unhealthy. Had tried specific treatment alone in vain. Leg healed nicely in about five weeks, under the combined use of constitutional and the chlorate of potassium treatment.

CASE.—M. W., female, aged 66, syphilitic. An extremely large and deep ulcer, covering nearly the whole of the posterior and external lateral aspects of the leg. Discharge excessively fetid. Rapid and continued improvement for several weeks, under the combined constitutional and chlorate of potassium treatment. Lost sight of before complete healing took place.

CASE.—J. H., male, aged 66. Several small but troublesome ulcers along the crest of the tibia. Had been troubled for months. Probably due to a previous injury of the knee-joint. Healed completely in ten days by this treatment.

CASE.—P. M., male, aged 38. Varicose ulcer of leg. Had been troubled for over a year. Healed completely in one week.

CASE.—O. H., male, aged 46. Small indolent ulcer of the leg of many months' standing. Healed in one week.

CASE.—C. K., female, aged 40. Large indolent ulcer of the leg of over a year's standing. Rapid and continued improvement for two weeks. Was then lost sight of.

CASE.—P. N., male, aged 38. Troubled with a large varicose ulcer for several years. Healed completely in three weeks.

CASE.—S. T., female, aged 10. Simple but unhealthy-looking ulcer of several weeks' duration. Healed in one week.

CASE.—M. C., female, aged 40. Varicose ulcer of several years' standing. Healed in four weeks.

CASE.—F. F., male, aged 19. Two large ragged, deep and unhealthy-looking sores on the right leg, and a similar one on the left. Discharge excessively fetid. Looked as though gangrene had set in. Healed completely in three weeks.

CASE.—M. M., female, aged 40. Large indolent ulcer of the leg of several years' standing. Healed in five weeks.

CASE.—L. C., male, aged 41. Troubled for years with an indolent ulcer of the leg. Had tried almost everything—amongst other means, skin-grafting—but without benefit. Healed in two weeks.

And so I might go on, and enumerate case after case; but I think the above are sufficient to prove the efficacy of this plan of treatment. I wish, however, to quote one case, as showing the advantage in the use of the saturated solution of chlorate of potassium in recent injuries when the suppuration is profuse;

CASE.—H. B., male, aged 28, of fine muscular development. Received a penetrating lacerated wound of the arm, which severed the brachial artery. The hemorrhage was controlled by acu-pressure both above and below the wound. On the removal of the needles a large slough came away, and the suppuration was excessive and very exhausting. The solution of chlorate of potassium was used, the excessive flow of pus was checked, the fetor arising from it allayed, and the patient rapidly convalesced.

One word as regards the mode of operation of chlorate of potash thus used. I do not know that I am right, but my theory is as follows:

1st. Its astringent properties cause it to repress exuberant granulations, or to stimulate their growth when they are absent or ill-formed.

2d. As an antiphlogistic it moderates the inflammatory action.

3d. And this I regard as the most important: as an antiseptic it destroys and prevents the growth of bacteria.

This threefold action, I believe, meets all the indications for the local treatment of this troublesome class of afflictions. In conclusion, let me say that this use of chlorate of potassium is not my own discovery, but was suggested to me while *interne* at the Monroe County Hospital, by the attending physician, Dr. Azel Backus, of Rochester, who has used this treatment successfully in his practice for years.

Dialysed Iron.

Editors Lancet and Clinic.—Having seen the happiest effects recently from the use of dialysed iron, administered to two female patients suffering from chlorosis, both of whom objected to taking iron in any form as it had always made them suffer more unpleasant effects than did the disease itself; and the rapid benefit following the administration of this comparatively new preparation of iron, led me to read up its chemistry and mode of preparation. In addition to the very favorable notice from Dr. S. Weir Mitchell, I was very much impressed with the article written by Dr. Yandell, of Louisville, and also by an analysis given in a late number of the Boston Medical and Surgical Journal, by Dr. Emory, of Boston. Messrs. Jno. Wyeth & Bro., of this city, having specially called the attention of the medical profession to this preparation, I took the liberty of calling upon them, and asked if they would give me an account of their mode of preparation and allow me to visit their laboratory and see the practical workings of their appliances for the manufacture of this iron. They at once expressed their willingness to give me every facility and asked me to visit the part of the building devoted to the manufacture of this article. Their very intelligent manager of this department explained to me fully the different processes from the crude iron to the bottled preparation. Thinking it might be of interest to the readers of your valuable journal I resolved to communicate with you upon the subject.

Instead of using a commercial iron in the form of iron wire and filings they use a chemically pure sulph. of iron. The entire freedom of the iron from any impurity is very essential. The pure sulphate of iron is precipitated in large vessels by means of ammonia. It is then carefully washed, drawn out, and drained into a large steam jacketed kettle, and mixed with the proper proportion of sesqui-oxide of iron and heated to a temperature of 160 degrees. This gives the proper solution of per-oxide of iron ready for the process of endosmosis.

The water they use to aid in the dialysation is furnished by an artesian well, dug for the purpose and the water is pumped into large vats on the roof of their four-story building.

The water in these tanks is heated by steam through coils of pipe, which are so arranged that cold water may be added so as to regulate the exact temperature as may be thought necessary for the proper dialysation—this temperature being varied as the per centage of acid is lessened in the solution.

Each appliance covers a surface of 400 square feet, enabling them to prepare about sixty gallons at one time with each one of their vessels. It requires from ten to thirty days to finish each separate acid solution placed upon the membrane. Every day during the

process the solution is carefully assayed by the person in charge, so as to enable him to regulate the temperature of the water and prevent the membrane from being clogged by the iron solution. The essay is made by precipitating with aqua ammonia well washed. Heat is applied to expel the excess of ammonia in the solution. Nitrate of silver is added. The mixture is then allowed to stand and afterwards decanted, washed, dried and weighed. Washing, drying and weighing shows the percentage of iron in the solution.

The standard strength of the solution of iron is 24 grains to each fluid ounce of pure per-oxide of iron, each fluid ounce containing only sufficient chlorine to prevent decomposition. Occasionally if the dialysation is carried too far some portion of the solution will gelatinize from the dialyser, and occasionally if exposed to the sunlight or air too long before being bottled this solution of iron will become thick. If a small percentage of distilled water is immediately added it will regain its limpidity at once, but if allowed to remain in this condition for some time it undergoes exactly the same change that takes place with the officinal hydrated sesqui-oxide of iron when kept under water for a considerable time. This solution when properly prepared should be almost tasteless and yield no reaction of acid to litmus paper, or any of the ordinary tests.

The usual dose is from five to twenty drops given three or four times a day. Its freedom from taste renders it especially desirable for children. As experiment has shown that only a certain amount of iron will be absorbed into the system at one time, I cannot recognize the advantage of giving it in larger doses, although some medical men claim that they get better benefit when it is administered in half teaspoonful doses. Dr. Weir Mitchell especially advocates the larger doses. Dr. DaCosta and a number of our leading physicians seem to prefer smaller doses, usually from 10 to 20 drops as a full adult dose. The dose given to the patients to whom I make allusion above was 15 drops three times a day.

Physicians will readily understand why this solution of iron when properly prepared can be depended upon as an antidote for poisoning by arsenic. Its chemistry is almost identical with that of the hydrated sesqui-oxide of iron.

I was also much interested and instructed by the explanation they gave me concerning their method of percolation and manufacture of fluid extracts and resinoids.

At some future time, if you think it would prove interesting and instructive to your readers it would give me pleasure to give you a resumé of their mode of exhausting the drugs.

The very general attention now being given to sulphate of cinchona, cinchonidia, quinida, and the other less costly alkaloids existing in Peruvian bark; on account of the terrible high cost of

quinine, is a subject of great interest to the profession. At some future time I will visit the extensive works of Messrs. Rosengarten and those of Messrs. Powers & Weightman and endeavor to learn some points in order that they may be laid before your readers.

M. S. F.

—:O:—

THE MORTALITY OF DOCTORS.—The question is often asked, are we longer or shorter-lived than other classes of the community? The answer is difficult. If we take for data the ages of physicians and surgeons of eminence, it would seem that the anxieties of medical life, the loss of rest, exposure to infectious or contagious disease, were not unfavorable to longevity. If a medical man commences medical life with a fairly balanced constitution, and with what is of still more or equal importance, a fair balance to his credit at his bankers, the chances are that he will both secure a good practice and live to a good age, provided he follows fairly the general laws of health.

If, on the other hand, his health is exceptionally good, and he is but scantily provided with funds, he will have greater difficulty in acquiring a good *clientele*, whilst the worry and anxiety about pecuniary matters will have a tendency to shorten his life.

It is the worry about ways and means that kills. Casper affirmed that German medical practitioners were shorter-lived. Dubois has ascertained that out of 800 practitioners, 365 attained the age of 70 and upwards. This exceeds the proportion allotted to theologians. Accurate modern statistics are difficult to secure, but we feel certain it will be found the mortality will vary in proportion to the pecuniary position of the individuals.—*The Medical Press and Circular*.—*Cincinnati Lancet and Clinic*.

—:O:—

CHLORAL ANESTHESIA IN CHILDREN.—The following is borrowed from the *Paris Medical* of August 26th: M. Bonchut has administered chloral to more than ten thousand patients without having to register a single untoward effect. The physician to the Hospital for Children has arrived at the following conclusions, which may serve to guide physicians in practice:

The hydrate of chloral is better borne by children than in adults.

Chloral may be administered to children a long time without danger. (Some children affected with chorea have taken as high as 100 or 120 grammes of chloral in a month.)

According to the age, 1, 2 or 3 grammes and more administered by the stomach produce a complete anaesthesia which lasts from three to six hours. Under seven years the dose should not exceed three grammes, and between 2 and 5 years two gr. should be the limit.

It is given at one dose dissolved in 100 gr. of syrup.

Given by injection or suppository it produces the same effect as in the stomach.

This anæsthesia which can be produced so easily in children with chloral (complete one hour after administration), can be utilized in extracting teeth, opening abscesses, breaking up ankyloses, using caustics, thoracentesis and a certain number of surgical operations. —*Lyon Medical*, Sept. 1, 1878.—*Cincinnati Lancet*. R. B. D.

————:O:————

The Illinois State Board of Health Attacking Quackery.

In Chicago, in October, Judge Williams rendered a decision, in the case of Aikin vs. The State Board of Health. The complainant belongs to a class known as "advertising doctors," and held a certificate granted by the State Board, which permitted him to practice, and placed him on the list of the recognized physicians of the State. Recently he was warned that unless he desisted in his method of bringing himself before the public, his license would be revoked. The complainant then commenced the present suit, asking for an injunction, restraining the board from taking any action of the character, setting up that the board had no authority under the statutes, and that his course had not been unprofessional in any sense. An effort was also made to show that the law under which the board came into existence was unconstitutional.

The advertisements of Aikin professed his ability to cure all manner of diseases, and a number of reputable physicians were brought into court to testify that in a great many instances they were false, and liable to mislead ignorant people. As it was this class to protect which the State law was especially framed, it was held that the board had a right to discipline any member of the profession, and to decide what was unprofessional conduct in one of their calling. The court held that a board of this character must necessarily be vested with large discretionary power, and in the proper exercise of it should not be controlled by individual tribunals. It had, therefore, a right, in considering the sanitary conditions of the people, to decide what was "unprofessional," and what was not. In this sense a physician may be guilty of unprofessional conduct, and not criminal. Independent of the right of the board to exercise its authority without the intervention of the courts, it had been shown that the complainant had made statements in his advertisements which had been considered by a number of eminent practitioners as false as well as disreputable.

In discussing the constitutionality of the statute, the court spoke at considerable length, and said that the right to practice

medicine was not descendable from its possessor to his heir, and may be lost by misconduct or immorality on the part of the practitioner. (12 Miss. 270; 5 Ohio, 22; 50 Ala., 486.) As the right to practice is a mere statutory privilege, there is no reason why it should not be denied to one man and extended to another in the discretion of the legislature. (See 12 District 17 Cal., 547; 22 Cal., 321.) The prayer for the injunction was therefore denied.—*Med. and Surg. Reporter.*

—:0:—

Surgeon-General of the Navy.

Unusual interest has been felt by the medical corps of the navy in the appointment of a "chief of the Bureau of Medicine and Surgery" in the Navy department at Washington; the late incumbent, Surgeon William Grier, having recently retired by reason of age.

The Bureau of Medicine and Surgery, next that of Dock and Yards, is the most important of the departmental bureaus, and an appointment as its chief carries with the office the relative rank and pay of a commodore, and the title of "Surgeon-General of the Navy." With but a single exception it has always been given to the senior surgeon on the active list, and the importance attached to the present selection of this official has grown out of the fact that the secretary of the navy, on account of the comparatively brief time remaining before the officer whose name headed the list would be retired by reason of age, has seemed disposed to disregard precedent, and appoint to the vacant position a junior member of the medical corps. Great satisfaction is therefore felt that the head of the department has adhered to a custom, the non-observance of which would have had so demoralizing an influence.

Medical Director J. Winthrop Taylor, upon whom the surgeon-generalship has been conferred, was born in New York, in 1817. Graduating from Princeton College, and from the medical department of the University of Pennsylvania, he was appointed to the United States navy from the state of New Jersey in 1838. He has spent seven years and sixteen months at sea, an amount of service which has been equaled by but two other medical officers of the active list. He was in active duty throughout the Mexican war and the rebellion. He accompanied the expedition sent to bring the filibuster General Walker away from Nicaragua, and commanded in person the detail which conducted the prisoner by a long and perilous journey to the coast. He was surgeon of the *Pensacola*, when she ran the blockade of rebel forts erected along the Potomac River for her destruction, and was on duty in the same ship when, under Farragut, she passed the Mississippi forts, and assisted in the capture of New Orleans.

Surgeon-General Taylor has resided for many years in Boston, having been repeatedly attached to the Navy Yard, the Rendezvous, and the receiving ship at Charlestown, and to the Naval Hospital at Chelsea. This crowning honor of an active and unblemished service of forty years will give pleasure to a large circle of friends, by whom he is well known for his urbanity and his high standing as an officer and a gentleman.--*Boston Journal*, October 31, 1878.

—:0:—

LIST OF PHYSICIANS WHO HAVE DIED OF YELLOW FEVER IN MEMPHIS.—Dr. R. W. Mitchell, Medical Director, Howard Corps, Memphis, Tennessee, has furnished the following list of physicians who have died in Memphis since the commencement of the present epidemic up to Oct. 1, 1878:—Armstrong, J. W., Memphis, Tennessee; Burcham, Robert, Columbus, Ohio; Bond, T. W., Brownsville, Tenn.; Bankson, T. S., Stevenson, Alabama; Chevis, L. A., Savannah, Georgia; Dawson, G. R., Memphis, Tennessee; Forbes, J. G., Round Rock, Texas; Gorrell, J. O. G., Fort Wayne, Indiana; Harlan, L. B., Hot Springs, Arkansas; Hodges, W. R., Memphis, Tenn.; Hicks, Jno. B., Murfreesboro, Tenn.; Meade, W. C., Memphis, Tenn.; McKim, J. W., St. Louis, Missouri; McGregor, Thos. H., Tipton County, Tenn.; Menees, T. W., Nashville, Tenn.; Nugent, P. C., St. Louis, Missouri; Pierce, Hiram M., Cincinnati, Ohio; Renner, J. G., Indianapolis, Indiana; Turek, P., Cincinnati, Ohio; Williams, R. B., Woodburn, Kentucky; Robbins, N. H., Memphis, Tenn.; Earley, E. T., Little Rock, Arkansas; White, J. M. S., Macon, Georgia. The above were all members of the Howard Volunteer Medical Corps. Dr. B. W. Arent, Dr. Paul Otey, Dr. John H. Erskine, Dr. J. P. Watson, Dr. Jno. D. Woodward, resident physicians of Memphis.

Physicians who died while in attendance on yellow fever patients:—Dr. T. W. Meares, volunteer from Nashville, Tenn.; Dr. J. B. Hicks, volunteer from Murfreesboro, Tenn.; Dr. J. S. Bankson, volunteer from Stevenson, Alabama; Dr. R. H. Tate, volunteer from Cincinnati, Ohio; Dr. W. J. Armstrong of Memphis. Sept. 30th, Dr. Edward Tandy Easley, volunteer from Little Rock, Arkansas. Oct. 6th, Dr. Wm. R. Lowry, of Memphis; Dr. R. F. Brown, Secretary of Board of Health. Oct. 7th, Dr. J. F. Sample, volunteer from Austin, Miss.

Vicksburg, Miss.—Oct. 6th, Dr. Newman. Oct. 7th, Dr. M. Blackburn, Dr. Birdsong.

Tangipahoa, La.—Sept. 18th, Dr. H. A. Swasey.

Grand Junction, Tenn.—Oct. 1st, Dr. Joseph H. Prewitt.

Greenville, Miss.—Dr. Stafford, Dr. V. F. P. Alexander.

Port Gibson, Miss.—Oct. 1st, Dr. J. G. Strobridge, Dr. W. D. Spratt.

Previously reported, 63. Total to date, 81.—*Medical Journal*.

Artificial Respiration.

In the absence of myself and partner, Dr. Whitley, an earnest message came, Friday, P. M., December 21st, 1877, to call at the residence of Mrs. S., an American, about forty-two years of age. On returning, Dr. W. answered the summons, but found Dr. M. in attendance. The latter had just administered morph. sulph., for nervous excitation, in part the result of some family trouble, therefore the case was left in charge of Dr. M.

In about an hour Dr. W. was re-summoned. Returning, he found the patient cold, comatose, unable to swallow, and apparently dying. She drew her last gasping breath as he re-entered her room. Artificial respiration was at once resorted to. A subcutaneous injection of atropia sulph. was administered, cold applied to the head, and heat, stimulants of friction to the body and extremities. I was then called in consultation.

The atropia was repeated, and the general treatment continued. In about an hour the pupils began to dilate, and the body to regain slight warmth; yet no other signs of returning life appeared. There was no pulse at the wrist; and if artificial respiration was momentarily suspended, the heart's tremulous motion ceased. Much of the time the tongue was drawn forward and held; otherwise no air could be forced into the lungs.

This treatment was energetically continued, with alternating hopes and fears, about seven hours. Feeble, unaided respiration was then resumed, and maintained about half an hour. It then ceased, and artificial was again resorted to. After about the same length of time she again began "to spin the brittle thread of life," and was able to swallow.

Partial consciousness returned Saturday morning, and hopes of recovery were entertained during the day, and a portion of the following. In defiance of precautionary efforts, however, pneumonic congestion came on Sunday afternoon, the patient relapsed into a profound coma, and died Monday evening, about seventy hours after taking the morphia.

The remarkable features in this case were the length of time during which artificial respiration was maintained, and the small amount of morphia; just one-sixth of a grain, alleged to have been given. The patient was previously healthy.

Osage, Iowa.

S. B. CHASE, M. D.

Medical and Surgical Reporter.

—:o:—

NITRATE OF SILVER AS A UTERINE CAUSTIC, is thus spoken of by Dr. T. Addis Emmet: "We have no remedy which acts with more promptness than the nitrate of silver, which applied to the mucous membrane of the cervix, yet it has done more damage

than any other. From being in common use it is the more dangerous; for its repeated action will ultimately destroy the mucous follicles, harden the tissues, and close the os, as certain as the application of the actual cautery."—*Hospital Gazette*.

—:o:—

Dr. Grissom's Charges against Dr. Hammond.

Personality in journalism is to be reprobated, but it is possible for a physician to attain such eminence that his character is no longer a private but a public possession, the whole profession being honored or dishonored with him. Such high station certainly has been reached by Prof. Hammond of New York, and as certainly serious attack upon his character is a matter not of private but of public moment. This much of apology we offer for noticing a present controversy, if the preferring and rebutting of criminal charges can be called a controversy. In a paper entitled "True and False Medical Experts," and more directly in subsequent writings, Dr. Grissom unskillfully, and with much of very objectionable matter, makes certain charges against the New York neurologist. Omitting the minor of these charges, the more serious may be stated succinctly as follows:

First. In order to clear McFarland, who shot Richardson, Dr. Hammond stated on the witness stand "that the insane are very persistent in their revenge. I have known insane men occupied with the idea of killing their keeper for years, and finally do it;" whilst in order to convict Montgomery he stated that "deliberation takes away the idea of an insane act."*

Second. That to insure the execution of Reynolds, Dr. Hammond declared under oath, "The disease [epileptic mania] is of remarkably short duration. There is not a case on record where it has lasted fifteen minutes;" whilst in order to convict Montgomery he had said, "when an epileptic has suffered from an attack, the mental disturbance continues, frequently, several days."

Third. That in the Johnston will case he gave testimony which was scientifically false, although necessary for the breaking of the will, and† that it was proven that he was to receive five hundred dollars for his testimony, and a contingent of twenty-five hundred dollars if he succeeded in breaking the will.

Fourth. That in the Montgomery case he one day gave one opinion and the following day an opposite one, having been seen in the mean while by the interested counsel.

Of course a wicked man may make a true accusation, and a man of good repute a false one. Nevertheless, the gravity of a charge

* We must refer to the pamphlets of Dr. Grissom to show how these various assertions were necessary to the escape or conviction of the accused.

† That there are no lucid intervals in monomania.

in a case like the present is enhanced by a previous character for ability and probity on the part of the accuser. Dr. Grissom is a prominent alienist, of good repute among his associates, and he is a member of the *Judicial Council of the American Medical Association*. Under the circumstances it seems inconceivable but that he believes to be true what he asserts. To prefer such charges falsely, or even lightly, against a physician of Dr. Hammond's renown, would be professional suicide.

These considerations in no way prove the truth of the accusation, but they do remove the transaction from the arena of mere personal dispute and quarrel, and entitle it to rank as a semi-official citation of the asserted culprit before the profession, by one selected by the profession to judge of its ethical and moral questions. This view of the case is further strengthened by the somewhat defiant offer (in response to Dr. Hammond) of Dr. Grissom to prove his charges before a jury and to deposit sufficient bonds to cover any probable award or damage.

Under these circumstances the case assumes a most serious aspect. There is no medical man in these United States that could afford to allow his reputation to rest for a day in this position.

There is no medical body meeting in this country more reputable than the Association of the Superintendents of the American Institution for the Insane. At the last meeting of this body a resolution was offered and warmly pressed by three members, condemning the action of Dr. Grissom. It was, however, defeated, we believe by an overwhelming majority. This is, of course, a virtual endorsement of the charges. So that, as the case now stands, the said charges have not only been publicly preferred against Dr. Hammond by a member of the Judicial Council of the American Medical Association, but have also been endorsed by the National Association of Specialists connected with the subject.

The reply to all this on the part of Dr. Hammond is to be found in two pamphlets, which may be analyzed as containing—first, various counter-charges against Dr. Grissom, with a flood of personal abuse; second, the assertion that the Association of Superintendents are endeavoring to destroy him (Dr. Hammond,) because he has been an advocate of the non-restraint system of treating insanity; third, the partial denial of some of the charges, but no straightforward, complete denial of them, and no attempt to disprove the detailed statements and documentary evidence offered by Dr. Grissom.* A simple denial from Dr. Hammond of the accusations against him would have deservedly had great weight with the profession; but his "open letters" are such a mixture of seeming evasion, school-boy wit, puerile abuse, and disgraceful

*It is but fair to state that the more serious of the counter-charges are disproven by documentary and other evidence by Dr. Grissom.

vulgarity* that we think they must have astonished his warmest friends. They certainly do not meet the needs of his cause at all. The profession will be very slow to believe his accusations against the Superintendents' Association, and it is he, Dr. Hammond, and not Dr. Grissom, who is at the bar of public opinion. If Dr. Hammond would retain any of the respect of the profession, he must make a brief and pointed but detailed denial of the charges, and follow this by citing Dr. Grissom either before the Judicial Council of the American Medical Association or before a jury in a libel suit. The professional tribunal is, to our thinking, the proper one; but if Dr. Hammond desires to recoup himself for the expense and annoyance to which, if innocent, he has been unnecessarily subjected, the civil court is open to him. Of one thing he may be certain,—that by his own replies he has done much to turn against himself the current of professional opinion, and that the circumstances of the case imperatively demand decisive action on his part.—*Editorial Philadelphia Medical Times.*

—:o:—

Correspondence.

The following communication published, *verbatim et literatim*, requires no explanation. We suggest that the author be invited to participate in the proceedings of the Buffalo Medical Association, and possibly "*read a paper.*"

Mr. Editor & Proprietor I am not in sport or speaking foolish let there Be a Improvement in surgery and medical science, and the only way is to go about it Right experiment and find out (as a matter of Charity Philathanopy to wake up the medical fraternity, Pleas Present it to your Readers (the man who Can accomplish these things skillfully has found out a scientific fact and will make money for himself N, B if there is no such a Paper Published in Buffalo, why whoevers hands this falls into, Pleas

*To justify this assertion, we quote in full the latter part of the concluding paragraph of the second open letter. *Ex uno omnes disce.*

"A distempered and snarling cur has nobler mental and moral qualities than you; the vibrio that wriggles in decomposing filth is higher in the scale of existence; the foul bird that desecrates its own nest is less odious; the wretch who, actuated by perverted instincts, revels in nastiness and abominations, is not so execrable; the monster who insults the mother who bore him is more entitled to human sympathy. Whether you receive your dues in this world or in the next is, as I have said, a matter of no consequence to me; but if a being as groveling, hypocritical, fraudulent, and polluted as you, could through any means, escape punishment to which his crimes entitle him, then I should lose faith in the justice of an omniscient God, and wonder for what purpose hell was instituted. Go, graceless and irreclaimable quack; hardened and infamous blackguard, sane or insane, knave or maniac, and regale your devious fancies by the contemplation of your own depravity."

send it to some other Surgical Paper Published Published here is stamped Enveope to do so so it cost you nothing to do so Pleas do it.

Nov 18, 78

Wooster O in Sineerety Present this to your medical Readers everywhere

To Pleas Present this to your,  numerous surgical & Medical Subscribers, one of the first and greatest medical Experiments of our Surgeons, our Day ought to Be engrafting animal Tissues or  membranes in the human Body for Instancee where a man had lost a Testiele=take the Testiele of a Bull or Boar or stallion, attach it to him, get the Blood to Cireulate freely through the Parts freely & apply Eleeriety & Prevent slooehing and mortification & get the Parts to grow together, I beleive it Can Be done suecessfully, let the experiment Be tried Perseverelingly on the lower animals first, then on man, yes sir the surgeon who Can succeed will stand at the head of his Profesion, so likewise in other malidies of the Body let these experiments Be tried  there is very few Important Inventions & Cures & Instruments & Discoveries Been made, without first experimenting and making great effort at first to accomplish the desired end in view .

yours truly G- R- W

so Pleas Present free gratis to your Readers a suffer

P- S we have Plenty of Books treating on Seminal weakness = But I Cannot = find = any treating on them = other attending Diseases of which I Beleive thousands are suffering with vis orchitis & Neuralgia Hydroele & Tumors & Hardening falling loosing of the Cord & Spermatocle Ruptured artery & varieose veins abeesses & serofula sore & varioele & Caneer & Cartlige and hardning of the testieles & fungus Protusions Atrophy and the hundred and one other Diseases affecting the Testieles, why is it we have no Books on these very Important Diseases, a Book Costing two or three Dollars, with numerous engraving Pointing out on what Part of the testiele the Diseases Commenees. the Causes that produces them  also the way to Cure them to a healthy Condition=Both=By=Surgery=and=medieine I think would Be aaccepteable to thousands of suffers, the most of our Doctors know But very little about these Diseases, hardly know what to Call it, and Can searely ever Cure a sufferer.

Editorial.

Suits for Malpractice,

GROWING SO COMMON AS TO CONSTITUTE AN EPIDEMIC IN THE STATE OF
NEW YORK.

We desire to call attention to some of the causes, symptoms and means of cure of this alarming disease now so prevalent. The remote causes are, briefly, that the verdict of a petit jury is no index of right, honesty, or law, is indeed a bigoted, idiotic or imbecile prejudiced expression of sympathy and nothing more. The decision of a Court in New York is no more of a guide to truth and right, than the falling of a stick was to a lost traveler in our ancient forests. Such a chance is better, safer, more creditable, more reasonable and in all respects a more civilized mode of determining or deciding the merits or demerits of our professional conduct than our courts of law. We are pained to believe that an institution so hoary with age, and so respectably related to society, is a barbarism as atrocious in civil cases as hanging a witch or burning a lunatic, practiced hundreds of years ago. We boast of our civilization, but would it not be as becoming to go out and put on "sackcloth and ashes," and weep that we were born so soon—so long before the dawn of civilization.

The medical profession of this country has influence enough if rightly applied, to correct in some degree the barbarism of our present code,—to insure in medical cases a jury of physicians or of selected scientific men—a jury from our peers, in the phraseology of law. But as reformation must meet opposition and requires time, we are happy to announce that Physicians of Chautauqua Co., we understand, have organized for self-defense, in suits for mal-practice. We quote from a private letter from one of the most experienced and influential physicians and surgeons of the county.

"We have had no meeting of our Society since our last mal-practice verdict, but it is a *very general* agreement among our medical men, that we will not attend any surgical cases liable to a bad result without sufficient counsel for *defense*, and the patient must pay the *cost*. The people by the juries are educating us to protect ourselves, and we propose to profit by their teachings, and let them *pay the bills*."

We shall go into malpractice suits *armed*.

Fredonia, Dunkirk, Mayville and Westfield are a *unit* upon the subject.

If we could get the Pennsylvania law to make *contracts* between *surgeons* and *patients binding*, we could take care of ourselves. Now a contract in this state is *annulled* by a mal-practice suit. A special statute instructing courts that such contracts were valid would rectify the whole matter. I thank you for your interest in our professional matters, which are also those of the whole state, only *we now* are in the center of the epidemic.

Yours, truly,

* * * *

Maltine.

British Medical Journal, October 19, 1878.

"At late meeting of the British Medical Association, at Bath, in August last, among the exhibits of pharmaceutical and medical preparations, much interest was shown in one called *Maltine*, which may be described as a highly concentrated extract of Malted Barley, Wheat and Oats.

"Extracts of Malt (*i. e.* malted barley) are pretty widely known, but this is the first example of a combination of the nutritious principles of these three cereals that we have seen; and the greater value of this combination is apparent, as wheat and oats are especially rich in muscular and fat producing elements. This preparation is entirely free from the products of fermentation, such as alcohol and carbonic acid, and is very agreeable to the taste. Clinical experience enables us to recommend it as a nutritive and digestive agent, in virtue of its albuminoid contents, and its richness in phosphates and in diastase, likely to prove an important remedy in pulmonary affections, debility, many forms of indigestion, imperfect nutrition, and deficient lactation. It will in many cases take the place of Cod-liver oil and pancreatic emulsions, where these are not readily accepted by the stomach.

"The manufacturers, Messrs. Reed & Carrick, issue a pamphlet describing fully the process of manufacture, which no doubt they will supply to any medical man, and we are disposed to believe that Maltine, which is less known here than abroad, is well worthy of practical attention."

—:O:—

Items.

—The recent trial, in Chicago, of Kennedy, the wife murderer, furnishes a novel medical development. The plea of insanity was entered by the defense. The medical experts (Drs. Lyman and Brower) swear they believed the man then insane, and that, in all likelihood, he was insane at the time of the homicide. It was in evidence that the defendant had frequently taken spirits of camphor in considerable quantity, to drive away, as he said, an evil spirit that dogged him.

The judge charged that if defendant was insane at the time of the homicide he was to be acquitted on that ground, *unless* the insanity was due to the use of alcohol, in which case the verdict must be of murder in the first degree. He did not say drunkenness, which seems not to have been proven, but insanity. The jury were also to state whether the evidence had established the present insanity of the prisoner.

The verdict was that of murder in the first degree, and that the punishment should be hanging; that the defendant, at the time of the trial, was insane.

It seems that the practice of all the courts has been, in such cases, to stop all proceedings against a prisoner who, at the date of his trial, is found insane.

Both the charge of the court and the verdict occasion surprise.

As a sequel, the culprit, the next night after his trial, committed suicide in the jail by cutting his throat with a razor he had found in the corridor.

—*American female physicians*, whom we meet at every turn in Europe, have formerly been able to get private instruction in many special departments of medicine from the doctors and assistants here. This winter, unfortunately for them and for those who may care after them, we have had several of the Mary Walker type, who were not contented with any privileges short of those accorded to men, and urged their claims with such pertinacity that the faculty were impelled to take action in the matter, which has resulted in excluding them entirely, in future, from everything except the lectures of Prof. Gustav Braun.

—A solid aqueous extract of ergot, prepared by Dr. E. R. Squibb, of Brooklyn, is available for hypodermic use, and is said not to be liable to cause local inflammation. Its strength is five times that of ergot, and it is administered in solution in water.

—:O:—

Hamilton on Nervous Diseases.

Efforts having been made to prejudice the profession against Dr. Hamilton's recent work on Nervous Diseases, attention is called to the following estimate of the volume, from the October number of "Brain," the leading neurological journal of England. The review is signed by J. Crichton Browne, who is well known as one of the ablest of English neurologists.—

Dr. McLane Hamilton may be congratulated on having produced a concise and practical book on nervous diseases, and on having thus achieved the object which he prescribed to himself on commencing the laborious literary task, the fruits of which now lie before us in a large, well-arranged and well-printed volume. This is, unquestionably, the best and most complete text-book of nervous diseases that has yet appeared, and were international jealousy in scientific affairs at all possible, we might be excused for a feeling of chagrin that it should be of American parentage. A glance at its pages shows that the greater bulk of the material of which it is composed has been derived from English sources, and it might naturally have been anticipated that the digestion and compilation of that material would be accomplished in England. This work, however, has been performed in New York, and has been so well performed that no room is left for anything but commendation. With great skill Dr. Hamilton has presented to his readers a succinct and lucid survey of all that is known of the pathology of the nervous system, viewed in the light of the most recent researches. In so comprehensive an undertaking, involving such a number of moot questions, it is of course inevitable that criticism should be challenged on many pages. Frequently we find ourselves differing from Dr. Hamilton's conclusions and recommendations; but to discuss the points of divergence would be to enter upon the details, and leave untouched the general scope of the volume. From the preliminary description of the methods of examination and study, and of the instruments of precision employed in the investigation of nervous diseases, up till the final collection of formulæ, the book is eminently practical. It brings together much scattered information in a methodical and well-balanced manner. We think, however, that it would enhance its usefulness if, in future editions, Dr. Hamilton would give more prominence than he has now done to the physical symptoms of nervous diseases; if he would supply the specific indications for treatments and fuller directions for the employment of his formulæ, in the manner of Tanner's 'Practice of Medicine'; and if he would amend his pictorial illustrations, which as they now stand are the weakest part of his work, having neither artistic nor diagrammatic merit."

—:O:—

Patent Spring Washer Axles.

Physicians of Buffalo have for a long time regarded the continuous jolting of our carriages over stone pavements as one of the causes of the *paralysis* so common in the older members of the profession. As to the truth of this proposition we have nothing now to say, but we learn that a new axle for our carriages is offered which promotes comfort, and is worthy of trial. Prof. E. M.

Moore, M. D., of Rochester, writes the following to the manufacturers, Messrs. Sheldon & Co., Auburn, N. Y. Full illustration in our advertising page:

MESSRS. SHELDON & CO.: *Dear Sirs*—I have used your axles but a short time and can have no knowledge of their durability, but am convinced of their possessing this quality from their structure. But I am very certain that they produce ease and comfort in riding. I have driven my buggy over rough places, and have been surprised at the improvement over its former condition. I feel that they have especially disposed of my pet horror—that is, crossing the rail of the street railroad obliquely. I have driven at a round trot across this renowned axle-breaker, at an angle of forty-five degrees, with but little jar. When driving on a Medina stone pavement the wheels seem to be in a state of vibration, but are ever kept true by the Spiral Springs.

Yours truly,

E. M. MOORE.

—:o:—

List of Exchange Journals.

The New York Medical Record, The Boston Medical and Surgical Journal, The Medical and Surgical Reporter, The Cincinnati Lancet and Clinic, The Louisville Medical News, The Hospital Gazette, The Journal of Materia Medica, The Illinois Medical Recorder, The Nashville Journal of Medicine and Surgery, The Medical News and Library, The Monthly Abstract of Medical Sciences, The New Remedies, The New York Eclectic Medical and Surgical Journal, The Chicago Medical Journal and Examiner, The St. Louis Medical and Surgical Journal, Proceedings of the Medical Society of the County of Kings, The Eclectic Medical Journal, The Obstetric Gazette, The Pharmacist, The American Practitioner, New Preparations, Chicago Journal of Nervous and Mental Diseases, Archives of Dermatology, London Lancet, (Wm. C. Herald, Publisher), Dental Cosmos, Journal of Industry, Review and Index, The Laboratory, The New England Medical Gazette, The Cincinnati Medical News, The Cincinnati Medical Advance, Monthly Journal Illinois Medical Association, Medical Examiner and Chicago Medical Journal, Detroit Lancet, American Observer, Quarterly Journal of Inebriety (Hartford), Medical Review (Indianapolis), Kansas City Medical Journal, The American Practitioner, American Medical Weekly, Arkansas Medical Record, Braithwaite's Retrospect, Hall's Journal of Health, Druggists' Circular, Herald of Health, American Journal of Obstetrics, American Agriculturist, Archives of Ophthalmology and Otology, American Newspaper Reporter, Archives of Electrology and Neurology, The Lancet, Physician and Pharmacist, New York Observer, New York Medical Brief, Journal Materia Medica, Boston Journal of Chemistry, The American Journal of Dental Science, The Ohio Medical and Surgical Journal, The Maryland Medical Journal, The American Journal of Pharmacy, The Virginia Medical Monthly, The Obstetrical Journal, The St. Louis Clinical Record, The Philadelphia Medical Times (bi-weekly), The Toledo Medical and Surgical Journal, The North Carolina Medical Journal, The American Medical Journal, The New York Medical Journal, The Michigan Medical News, The Southern Medical Record, The Physio-Medical Journal, Atlanta Medical and Surgical Journal, Ohio Medical Recorder, Richmond and Louisville Medical Journal, American Medical Bi-Weekly, United States Investigator, Sanitarian, New Orleans Medical and Surgical Journal, The Iowa Catlin, American Journal Medical Science, Half-Yearly Compendium Medical Sciences, The Medical Times, Transactions of College of Physicians, Obstetrical Journal, of Great Britain and Ireland, Hahnemannian Monthly, Druggist and Chemist, Lescine and Monthly Bulletin, Northern Tier Reporter, Virginia Clinical Record, Missouri Dental

Journal, Pacific Medical Journal, The Western Lancet, The Medical Recorder, Journal of Insanity.

Foreign Journals.—L'Union Medicale du Canada, Canada Journal of Medical Science, Canada Medical and Surgical Journal, Canada Medical Record, Canada Health Journal. ENGLAND.—Chemist and Druggist, The Doctor, The Medical Press and Circular, The Medical Record.

—:O:—

Books Reviewed.

Cyclopaedia of the Practice of Medicine, Edited by D. H. VON ZIEMSEN, Vol. XIII. Diseases of the Spinal Cord and Medulla Oblongata. By Prof. Wilhelm Heinrich Erb, of Heidelberg, Baden. Albert H. Buck, M. D., Editor of American Edition. New York: Wm. Wood & Co.

This large sized volume is the work of one author alone. We have been impressed while reading it, with a feeling of admiration for the degree of success in treatment of the subject, which has been attained. When the amount of labor which is expended in gathering material, and the frequent exercise of good judgment necessary in recognizing truth among conflicting statements of observers is considered, it seems remarkable that so many generalizations should have been arrived at and that there should be so great a degree of plainness in expression in the statements of the volume.

The front part of the work is occupied with a general consideration of the anatomy, physiology, symptomatology, etiology, diagnosis and therapeutics of the spinal cord and its diseases. This part is especially attractive and valuable. The centres of co-ordination are considered to be in the brain only, and are supposed to be in the corpora quadrigemina, the thalami optici and the cerebellum; no such centres seem to exist in the cord although combined reflex movements may be evoked therefrom.

A *tonus* of the vascular muscles, the author says, seems to be proved. This is maintained by vaso-motor nerves kept in a slight constant excitement by centres demonstrated in the medulla oblongata and the spinal cord. After the removal of these centres, peripheral ganglionic apparatuses have the power also of keeping up the tone of the vessels.

For practical guidance in recognizing the affections which may present in diseases of the cord, the author gives the following statement, of principles, deduced from physiological and pathological experience:—

1. Section or limited affection of the posterior columns destroys the sense of touch in parts situated behind the point of injury, but leaves the sense of pain.
2. Disturbance of the conductive power of the gray substance for a limited longitudinal extent suspends the sense of pain, but leaves that of touch (analgesia).
3. Disease or destruction of the entering posterior root-fibres (or the network of fibres directly formed by them) must impair the sense of touch equally with that of pain and the other classes of sensation.
4. Injury or disease of the posterior columns at the level of the lumbar cord

leads to a diminution of the sense of touch at the anus, perineum, etc., while the sensibility and motility of the lower extremities remain unimpaired; the same lesions in the lateral columns of the lumbar cord have the same effect upon the lower extremities as those of the posterior columns in the dorsal and cervical medulla. 5. When the gray substance is partially destroyed in the transverse direction, and the posterior columns are also affected, the conduction of sensory impressions is retarded, in a degree proportional to the smallness of the transverse piece of gray matter that remains. But if the conductive power of the posterior columns is retained, this retardation appears to extend only to the sensation of pain, while the conduction of the sensation of touch takes place with normal rapidity. 6. Destruction of the entire extent of the posterior columns (inclusive of the sensitive root-fibres passing through them) must be followed by anæsthesia of a corresponding extent. 7. Limited destruction of the entire transverse extent of the posterior columns and of the gray substance is followed by complete anæsthesia of the portions of the body lying posteriorly, and weakness of motion or partial paralysis. 8. An *irritation* affecting a limited longitudinal extent of the posterior columns (inflammation, hyperæmia, etc.), produces a spontaneous pain in only those roots which traverse the diseased spot (girdle-pain; subjective formations of touch (formication, prickling, numbness, sensation of heat and cold) and some degree of hyperæsthesia occur in the parts situated posteriorly. 9. A *lesion producing paralysis*, affecting the posterior columns in the same way, gives rise to a girdle of complete insensibility, corresponding to the district supplied by the paralyzed nerve-roots; below this girdle the so-called sensations of touch are absent, or greatly impaired; the sensation of pain is retained, but is badly localized. 10. If an affection which at first irritates, and afterwards paralyzes, progresses upwards, the painful girdle travels upwards, and leaves behind it a girdle of anæsthesia which gradually increases in width; in the parts situated behind this the touch is gone, but subjective impressions of touch (formication, numbness, etc.) may be present. 11. When the power is unimpaired, and a girdle of pain without aberration of the sense of touch is present, then only the nerve-roots, within or without the cord, are affected. 12. In diseases of the posterior columns and the gray substance, the parts behind the diseased portion may experience only changes in the sense of touch, without any eccentric pains. (?) If the latter occur, they point to an implication of those nerve-roots which are situated further back. 13. Disorganization of an anterior and a lateral column and of the greatest part of the gray substance produces paralysis of the same side. 14. Destruction of the anterior (and lateral) columns in their entire transverse section (inclusive of the motor nerve-roots passing through them) is followed by a paralysis of corresponding extent. 15. Limited destruction of the entire transverse section of the anterior (and lateral) columns and of the gray substance is followed by complete paralysis, analgesia, but retention of the sense of touch. 16. Disease of the antero-lateral columns and the kinesioidic substance alone produces paralysis without lesion of sensibility. 17. Disease of the motor ganglia, into which the motor roots first enter, produces paralysis in the region of the related nerves, without disturbance of sensibility, but with trophic disturbances. 18. Affections of the antero-lateral columns and the corresponding gray substance produce contracture or convulsions *only* in the muscles immediately dependent on the diseased spot and its motor roots; but contractures of muscles supplied by the roots given off behind the affected spot are not produced (?). 19. Slight pressure on the cord may bring on paralysis of the extensors and secondary contractures in flexion, but this is never severe. 20. Contractures and convulsions of the lower extremities also occur in affections of the segments of the cord above the lumbar region; they are then a consequence of an implication of the posterior columns, and arise reflexly. In the same way, in diseases of the posterior columns, spasmodic symptoms occur in the parts situated near the head. 21. Disorganization of the entire gray substance to a considerable distance must be followed by anæsthesia and paralysis in the posterior part

of the body; if the lesion is limited to one place, the sensory and motor paralysis may be partial. 22. If the movements of respiration are entirely intact in an affection of the cervical cord which paralyzes the extremities and trunk, then the lateral columns are not involved. 23. Conditions of irritation in the cervical medulla will produce dilatation of the pupil; paralytic conditions, contraction. 24. Unilateral lesion of the cord is followed by almost total paralysis and increased sensory excitability on the injured side, with very slight disturbances of motion and loss of sensibility on the opposite side. 25. Complete compression or division of the spinal cord exaggerates the reflex acts in the region lying posteriorly to the lesion. 26. In limited destruction of the dorsal medulla, the reflex acts which are performed through the lumbar cord (evacuation of urine and feces, tonus, etc.) go on with very little alteration; only they can no longer be modified by the will. 27. The nutrition of peripheral parts (muscles, nerves, bones, joints, skin, etc.) remains intact in the various diseases of the spinal cord, in proportion as the gray substance remains normal.

The subjects of wounds, concussion and compression of the cord are carefully presented. The section on spinal irritation is introduced with a statement of the former abuse to which this term was subject and of the comparative disuse into which it has, as a consequence, fallen. The author, however, feels justified in using this term for a class of cases considerable in number, which are described by it, and which those who have large practical experience are not able to refer either to hysteria, neuralgia, intermittent fever, disease of internal organs, or to class among ordinary spinal diseases.

The portion which treats of *tubes dorsalis* or locomotor ataxy is worthy careful consideration. The course of the disease; the amaurosis and severe pains which may precede the ataxic symptoms by a considerable interval and the succeeding train of symptoms, are thoroughly described. The ataxia in diseases of the cord has not yet been satisfactorily referred to disease of the posterior or of the lateral columns alone. In *tubes*, sclerosis of the posterior columns is not the only condition found, but in the majority of cases, perhaps in all, the process extends beyond the posterior columns to the lateral columns and the posterior horns of the gray matter, often involving them to a very considerable extent.

In the main, the volume is worthy of welcome as a plain and thorough practical treatise, and a desirable acquisition to our literature.

Playfair's System of Midwifery. A Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M. D., F. R. C. P. With Notes and Additions by Robert P. Harris, M. D. Second American from the second and Revised London Edition, with two plates and one hundred and eighty-two illustrations. Philadelphia: Henry C. Lea, 1878. T. H. Butler, Buffalo.

In this book we are furnished with a Text Book in Obstetrics, in which progress in midwifery is fully embodied. The author says his "object has been to place in the hands of his readers an epitome of the science and prac-

tice of midwifery which embodies all recent advances." The arrangement of this work is most excellent as a text book. A wide range of subjects are ably, clearly and succinctly discussed; the practical part of the various diseases is prominent in the discussion, so that it is a most useful guide in obstetrical practice. The work is very finely illustrated by wood cuts, some of which are copied from previous authors; some original.

In looking over the interesting and attractive chapters, we fall upon "The Transfusion of Blood," and make brief extracts from it as showing the plain, direct style of the author as well as his guarded and safe method of expression.

"The transfusion of blood in desperate and apparently hopeless cases of hemorrhage, offers a possible means of rescuing the patient which merits careful consideration.

"The *history of the operation* is of considerable interest. In Villari's "Life of Savonarola" it is said to have been employed in the case of Pope Innocent VIII., in the year 1492, but I am not aware on what authority the statement is made. The first serious proposals for its performance do not seem to have been made until the latter half of the seventeenth century. It was first actually performed in France, by Dennis, of Montpellier, although Lower, of Oxford, had previously made experiments on animals which satisfied him that it might be undertaken with success. In November, 1667, some months after Denis's case, he made a public experiment at Arundel House, in which twelve ounces of sheep's blood were injected into the veins of a healthy man, who is stated to have been very well after the operation, which must, therefore, have proved successful. These nearly simultaneous cases give rise to a controversy as to priority of invention, which was long carried on with much bitterness.

The idea of resorting to transfusion after severe hemorrhage does not seem to have been then entertained. It was recommended as a means of treatment in various diseased states, or with the extravagant hope of imparting new life and vigor to the old and decrepit. The blood of the lower animals only was used; and, under these circumstances, it is not surprising that the operation, although practiced on several occasions, was never established as it might have been had its indications been better understood.

From that time it fell almost entirely into oblivion, although experiments and suggestions as to its applicability were occasionally made, especially by Dr. Harwood, Professor of Anatomy at Cambridge, who published a thesis on the subject in the year 1785. He, however, never carried his suggestions into practice, and, like his predecessors, only proposed to employ blood taken from the lower animals. In the year 1824 Dr. Blandell published his well known work, entitled "Researches, Physiological and Pathological," which detailed a large number of experiments; and to that distinguished physician belongs the undoubted merit of having brought the subject prominently before the profession, and of pointing out the cases in which the operation might be performed with hopes of success. Since the publication of this work, transfusion has been regarded as a legitimate operation under special circumstances; but, although it has frequently been performed with success, and in spite of many interesting monographs on the subject, it has never become so established, as a general resource in suitable cases, as its advantages would seem to warrant. Within the last few years more attention has been paid to the subject, and the writings of Panum, Martin, and de Bolina, abroad, and of Higginson, McDonnell Hicks, and Aveling, at home, amongst many others, have thrown much light on many points connected with the operation, and it is to be hoped that the committee appointed by the Obstetrical Society, in their forthcoming report, may still more increase our knowledge.

Books and Pamphlets Received.

Diseases of the Bladder and Urethra in Woman. By Alexander J. C. Skene, M. D. Wm. Wood & Co., New York. H. H. Otis, Buffalo.

On Rest and Pain: A course of Lectures on the Influence of Mechanical and Physical rest in the treatment of Accidents and Surgical Diseases, and the Diagnostic value of Pain. By John Hilton, F. R. S., F. R. C. S. Edited by W. H. A. Jacobson, F. R. C. Wm. Wood & Co. New York.

Notes on the Treatment of Skin Diseases. By Robert Liveing, A. M., M. D. Wm. Wood & Co. New York. H. H. Otis, Buffalo.

Practical Surgery; including Surgical Dressings, Bandaging, Ligations and Amputations. By J. Ewing Mears, M. D. Lindsay & Blakiston, Philadelphia. T. H. Butler, Buffalo.

Clinical Diagnosis: A Hand-Book for Students and Practitioners of Medicine. By James Finlayson, M. D. Henry C. Lea, Philadelphia. T. H. Butler, Buffalo.

A History of the Diagnosis, Pathology and Treatment of Yellow Fever. By J. B. Marvin, M. D.

Case of Sarcoma of the Kidney of a Negro Child. By W. H. Geddings, M. D., Aiken, S. C.

Uterine Pathology and Treatment. By R. E. Beach, M. D., Vandalia, Ill.

A Therapeutical Inquiry into Rational Medicine. By S. W. Wetmore, M. D., Buffalo, N. Y.

A Series of American Clinical Lectures. Edited by E. C. Seguin, M. D., on the treatment of the various forms of Acne and of Rosacea. By R. W. Taylor, M. D.

The Local Treatment of Eczema. By Henry G. Piffard, M. D.

The Constituents of Climate, with Special Reference to the Climate of Florida. By Frederick D. Lente, A. M., M. D.

Report of the Buffalo Eye and Ear Infirmary.

Case of Poisoning by oil of Chenopodium. By Thomas R. Brown, M. D.

Biographical Sketch of William M. Knight, M. D., Ex-President of the Society. Read before the Philadelphia Co. Medical Society, by Henry H. Smith, M. D.

Address of Erastus C. Benedict, L.L. D., Chancellor of the University of the State of New York, delivered at Albany, N. Y., July 9, 1878.

Clinical Lectures on Surgery delivered at Starling Medical College. By J. H. Pooley, M. D.

Artificial Feeding of Infants, and description of Instruments and Apparatus of the Author, with directions for their use. By A. Clendinen, M. D., Fort Lee, N. J.

The Eight Annual Report of the Board of Directors of the Free Medical and Surgical Dispensing Association of the City of Buffalo.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

JANUARY, 1879.

No. 6.

Original Communications.

—:O:—

ART. I.—*Umbilical Hernia in the Adult.* By WILLIAM WARREN
POTTER, M. D., of Batavia, N. Y.

A paper read before the Medical Association of Central N. Y. at Rochester, Nov. 19, 1878.

That species of rupture in which the abdominal viscera are protruded through the round opening of the *linea alba* which transmits the umbilical blood-vessels of the fœtus, has been named umbilical hernia. The terms *Exomphalos* and *Omphalocele* have also been applied to the malady; *exomphalos* especially being quite frequently used by many of the older authors. Mr. Samuel Cooper* remarks that "custom appears to sanction the extension of the terms *exomphalos*, *omphalocele*, and *umbilical hernia*, not only to protrusions of the bowels through the opening of the navel, but to all other tumors of a similar nature which present themselves anywhere in the vicinity of the aperture, and the majority

* First Lines in Surgery. Ed. of 1822. Vol. II, p. 2.

of which actually take place in the *linea alba* either above or below the precise situation of the umbilicus.”

Sir William Lawrence* asserts that the term *exomphalos* can be applied with propriety to that rupture only which occurs at the umbilicus, while any displacement of the viscera through the *linea alba*, in the neighborhood of the navel, should be classed with ventral hernia.

J. L. Petit was the first observer to point out the distinction between true *exomphalos*, and hernia of the *linea alba* in the immediate vicinity of the umbilicus; for before his time, says Mr. S. Cooper,† all umbilical hernia were supposed to protrude directly through the navel. The question appears to have been a point of controversy among writers at the close of the last, and beginning of the present century, some holding to the one view and others of equal acumen assisting the contrary opinion. The opinion of Sir Astley Cooper is quoted in support of the view, that umbilical hernia usually takes its course through the navel aperture. Sir William Lawrence‡ seems to have reached the gist of the matter when he declares “that the anatomical facts will furnish us with two pathological inferences. First; that infancy is more subject than any other age to umbilical hernia, properly so called, when the viscera are protruded through the navel itself. Secondly; that adults may be more exposed to that species of the complaint in which the hernia takes place in the vicinity of the umbilicus.” And again, the same author asserts§ that whether the protrusion takes place most frequently in the former or in the latter of these two situations (that is, directly through the navel or in the immediate vicinity of that part), can be a matter of no *practical* consequence whatever, although it might perhaps influence the name of the complaint.

To acquire an accurate knowledge of the malady now under consideration, it should be studied under its three principal forms: first, congenital *exomphalos*; second, *exomphalos* of the young subject; and finally, umbilical hernia in the adult. It is with the latter sub division of the disease that we have to do, more espe-

* Lawrence on Ruptures, p. 407.

† First Lines. Vol. II. p. 9.

‡ Lawrence on Ruptures, p. 108.

§ Ibid, p. 407.

cially, to-day; and, with your permission, I will here introduce a brief clinical history of a case of strangulated umbilical hernia, which, not very long ago, happened to fall under my observation. After supplingmenting the account with some remarks pertaining especially to the case itself, I will submit some observations germane to the whole subject.

CASE.—Mrs. C. residing near Corfu, Genesee county, aet 39 years, height 4 feet 10 inches, weight 195 pounds, very obese, married, mother of two children aged ten and eight years respectively, was, on the 19th of January 1877, at seven o'clock A. M., seized with great distress in the umbilical region, which she readily referred to the descent of an old hernia. The tumor had often before given her similar trouble, and as often had she been able to reduce it herself; but now, finding her efforts in that direction unavailing, she summoned her physician, a homeopathic practitioner residing a mile away. He soon reached her bedside and remained in constant attendance until five o'clock P. M. without, however, affording his patient any substantial relief. Her sufferings had now become so extreme as to alarm the friends, and Dr. A. H. Crawford of Corfu, a very skilful practitioner was called, and to whom the attending physician relinquished the charge of the case and departed. Dr. Crawford diagnosed strangulated umbilical hernia, and prescribed opium, hot fomentations, etc. The use of the taxis proving unsuccessful, he advised further counsel, suggesting the probabilities of an operation; and, in obedience to a telegraphic summons, I visited the patient at 10,30 o'clock, P. M.

Finding a tumor of the umbilicus, about the size, shape, and "feel" of a large turnip, which was still the source of great pain, we administered half a grain of Sulph. Morphia, supplingmenting it with inhalations of chloroform, hoping thus to control or abridge the sufferings of our patient in order to obtain a further examination of the tumor. After some delay this was accomplished, though with no little difficulty, on account of the *embonpoint* of the patient and the great tenderness of the swelling, when Dr. Crawford's diagnosis was confirmed. The remote symptoms were not yet urgent, so we decided to postpone the further consideration of operative measures, an alternative which now seemed inevitable,

until morning, in order to obtain the advantage of daylight; meanwhile continuing the hot applications to the entire abdomen. Morphia was also given in half grain doses, at intervals varying from half an hour to two hours, throughout the night, supplemented, as in the first instance, with inhalations of chloroform at frequent intervals, to allay the very anguish of misery in which the patient was tossing about the bed whenever its use was suspended for a lengthened period. Nausea, which had existed from the first, towards morning became a troublesome factor, and finally enormous quantities of nearly pure bile were ejected, and the patient complained of feeling sick "all over." Morning, at last, brought an ominous relief from pain and great prostration withal, but the condition of the hernial tumor was unchanged, it still feeling as dense, hard, and inelastic as ever.

Deeming further delay as now inexcusable, at 9 o'clock, A. M., twenty-six hours after the seizure, the patient was etherized, and Dr. Crawford assisting me, I operated by gastrotomy in the *linea alba*, at the lower margin of the tumor. I first endeavored to relieve the stricture outside the sac, but failing in this the sac itself was opened, by a small incision, when an ounce or more of serum escaped; its contents were found to consist of omentum, intestine, and a portion of the liver had also thrust itself into this insatiable maw. Passing the finger into the opening and down to the seat of the stricture, which had a sharp, cutting "feel," a guide was thus made for the passage of an ordinary hernia knife, with which the structure was readily relieved by division obliquely downwards to the left of the *linea alba*. The external wound, not larger than three inches, was closed by two deep interrupted sutures, and dressed in the usual manner. Bile was largely vomited during the first hour following the operation, after which it ceased altogether; union by adhesion resulted, and in two weeks, she was upon her feet and in the enjoyment of her usual health. It is proper to add that menstruation ensued three days subsequent to the operation.

REMARKS:—Two or three points of interest in this case seem to demand notice before dismissing it altogether.

The pain, it will be observed was of an unusually severe charac-

ter from the very outset, resisting every effort to relieve it unaided by chloroform, and requiring the almost constant exhibition of that drug, after the first twelve hours. The frequent vomiting of large quantities of pure bile is also a noticeable circumstance, accompanied as it was by the general *malaise*, which the patient often alluded to, as causing her to "feel sick all over." She explained her use of the expression, saying, that heretofore whenever the hernia had been incarcerated she had not felt as now—that in addition to the pain about the swelling, she experienced an indescribable misery, an unusual pain reaching through to the spine—that she felt sick "all over" as she had never felt before. The incarceration of a portion of the liver within the hernial sac becomes a feature of peculiar interest in view of the infrequency of its occurrence; and this no doubt offers an explanation of the strange and unusual feelings of the patient, and accounts as well, for the large quantities of bile ejected. The rapid recovery, without untoward symptoms, seems due, in a large measure, to the fact that the operation was made early, before the vitality of the parts became seriously impaired, and particularly before the patient's strength became exhausted. My only regret is that we did not see, and operate upon this patient in the P. M. of the day before, thus abridging her sufferings by several hours.

Sir James Paget in a lecture upon hernia very aptly remarks, "that for every case in which an operation has been avoided by waiting, there have been two cases in which lives have been lost by waiting too long." Mr. J. Cooper Forster in "The Lancet" for February 1872, says, "two cases (of umbilical hernia) came under my care not so very long ago in which the medical gentleman in attendance showed an amount of intelligence which was quite delightful. I saw both of the cases within four hours—one within two—of the descent of the hernia, and in both I operated within an hour of seeing them, and they both got well—a very unusual thing in cases of umbilical rupture." Again, Mr. Le Gros Clark remarks (in the British Medical Journal, April 1872,) "if gentleness and forbearance were more generally adopted in applying the measures undertaken to afford relief, and purgatives and procrastination—often self-inflicted—were eliminated from the treatment, I believe

that the statistics of the operation for strangulated hernia would present a far more favorable aspect than is at present the case.”

I am well aware that it is not always possible to draw a sharp line between the laying down of other remedial measures, and the taking up of the knife, but a considerable observation has convinced me, as I presume it has most of you, that failures in the operation for strangulated hernia are mainly due to procrastination. While I would not condemn the judicious and moderate use of the taxis in appropriate cases, I am yet of the opinion, that as much harm as good comes of it, in the long run. It is a method, at once, very potent for good, and very powerful for harm, its employment summoning all the attributes of the clever surgeon—patience, courage, caution, firmness, gentleness, skill—these and perhaps others which I have not mentioned will be necessary, and then, unhappily, its use will be looked back upon regretfully in many instances.

Fortunately in the case related, the taxis had been employed moderately and with skill by my colleague, leaving nothing for me to determine in regard to it, after my arrival.

LITERATURE.

Most writers on umbilical hernia appear to pass over the subject very carelessly, and whoever attempt an examination of the literature of this form of rupture, will be confronted at the outset by the fact that much less attention has been paid to perfecting our methods and procedures in respect to it, than to the other varieties of the disease. This is due, no doubt, largely to the fact that it is of much less frequent occurrence than the inguinal or femoral forms of rupture; though Sir Astley Cooper says that if he had followed the orders of frequency of occurrence in his description of the several species of hernia, he should not have hesitated to place the umbilical next in order to the inguinal.

The earlier authors of treatises upon Surgery, speaking generally, devote more space to the consideration of this subject, than do those writing at a later day and within our own time. Mr. Samuel Cooper in the second decade of the present century, occupies eighteen pages in the discussion of *exomphalos*, while Mr. Liston and Mr. Dewitt, writing one and two decades later respectively, dis-

miss the subject with a few short paragraphs. Mr. Fergusson writing about the same time as Mr. Dewitt, makes no mention specifically of umbilical hernia. Sir Astley Cooper* writing in the beginning of this century, discusses the subject in his masterly style in a chapter of forty pages. But of all the writers of the first quarter of this eventful century for medicine, Sir William Lawrence† has given us, in a chapter of twenty-six pages, perhaps, all things considered, the most clear, concise, and scholarly account of the malady under consideration. I have, in the course of this paper, quoted his opinions and sayings largely, as indeed, I have most of the other authors mentioned.

In our own country the venerable and ever to be venerated Gross, in his admirable treatise on Surgery, has devoted as much space as was consistent with the comprehensive nature of his work, to a succinct and practical detail of the more salient features of umbilical hernia; while Hamilton writing about the same period, gives his views in a few trite and terse paragraphs, extending through a page and a half of his unique and valuable volume—epigrammatic in style and full of practical teachings.

These, and other authors—contemporaneous with them, but whom I must omit to mention specifically for lack of time, may be examined with pleasure and profit in the investigation of this interesting subject.

CAUSES.

The causes of umbilical hernia in the adult, may be, in the main, classed under three heads: First, pregnancy and laborious parturition; Second, obesity; and Third, straining at stool.

It is more often a disease of woman; and pregnancy, with its attendant phenomena, is the most common cause of the malady in the adult female.‡ This cause operates chiefly in the more advanced months of gestation, the mechanical pressure of the gravid uterus, as it rises upwards, carrying the intestines before it, encroaches upon and narrows the space appointed for the abdominal viscera, thus aggravating the complaint if it has already existed, or

* See Sir A. Cooper on Hernia, page 259, et seq.

† See Lawrence on Ruptures, Am. Ed. 1843, p. 406, et seq.

‡ Sir A. Cooper on Hernia. Ed. 1844, p. 263.

becoming the source of it, as the case may be ; and the tumor generally becomes larger with every pregnancy, as might readily be anticipated. "Women often also ascribe this disease to laborious parturition."*

Sir William Lawrence† remarks that "the distension of the *linea alba* by the gravid uterus so strongly favors the occurrence of *ex-omphalos*, that the number of females afflicted with this rupture greatly exceeds that of males."

The second most common cause of this malady in the adult is obesity. According to Mr. S. Cooper,‡ dropsical and corpulent individuals of both sexes are frequently seen afflicted, and Sir William Lawrence§ alludes to the fact that excessive corpulency in both sexes acts, by weakening the navel or the immediately surrounding fibres of the *linea alba*, to produce umbilical hernia. And again, Sir Astley Cooper|| declares that a "very frequent cause of this complaint is an extraordinary degree of obesity, which, by enlarging the omentum and mesentery, renders the abdomen less capable of retaining its contents."

Straining at stool is referred to by Gross as one the causes which operate to produce umbilical hernia in the adult, though, I opine, it is a very infrequent one. It is, however, highly probable that any sort of straining, excessive in degree, as in pulling or pushing at a heavy load, or lifting a weighty burden, may, in a previously weakened or imperfect state of the parts, operate to protrude the abdominal viscera at or near the umbilicus.

STATISTICS.

The statistics of hernia, always full of interest to the profession in general, form a favorite field of study for the practical surgeon, and it may not be out of place to introduce here, such as bear more especially upon the branch of the subject under consideration.

During a period of 28 years, the City of London Truss Society relieved 83,584 cases of rupture, of which 3,439, or a fraction less

*Sir A. Cooper on Hernia. Ed. 1844, p. 263.

†Lawrence on Ruptures, 1843, p. 411.

‡First Lines in Surgery, 1822. Vol. II, p. 14.

§Lawrence on Ruptures, 1843, p. 410.

||On Hernia, p. 263.

than 1 in 25, were of the umbilical variety. Of these 3,439 cases of umbilical hernia, 664 were men, and 2,275 were women—more than four times as many women as men. Of 2000 ruptures observed by Monikoff, 78 were exomphali.* Camper saw at Amsterdam, 1,968 cases, of which only ten were umbilical hernia. Of seventy-one cases reported by Soemmering, in Holland, (all umbilical hernia,) seventeen were men and fifty-four were women.

In Vol. III, St. Thomas Hospital Reports, 1873, Mr. Croft gives the statistice of 2,401 cases of hernia, of which 104, or one in twenty-three, were umbilical ruptures, and of this number forty-two were males, and sixty-two females.

The Medical Statistics of the Provost Marshal General's Bureau, compiled by Surg. J. H. Baxter,† furnish some interesting data in this connection. An examination of table XIX of this report exhibits the fact that of 334,321 "recruits, substitutes, drafted, and enrolled men of various nativities," 17,296 were rejected on account of hernia, a ratio per 1000 of 50.554. Of the 17,296 rejected for hernia of all kinds, 317 were so rejected by reason of umbilical rupture, a ratio per 1000 of .948. For the purpose of showing the relation umbilical hernia bears to the white and colored races respectively, I have extracted from table XVII (p. 433, vol. II,) the following data. Of 341,569 Whites, Colored and Indians, examined 306 were rejected on account of umbilical hernia, 315.620 were White, of which number 125 were rejected for umbilical rupture, a ratio per 1000 of .396.

25.828 were Colored, and 181 rejected, a ratio of 7.008 per 1000.

121 were Indians, and none were rejected for this disease.

The fact that umbilical hernia is more frequent in the Colored race than in the White, as here shown, is probably owing, in part, to want of care in adjusting the umbilical bandage after birth,‡ and also, in part, to the fact that the negro babies are more neglected during infancy; they being allowed to cry excessively before the abdominal parietes become perfected.§

*Sir W. Lawrence, p. 24.

†Washington Gov't Printing Office, 1875.

‡Med. Statistics, P. M. G. Bureau, Vol. I, p. 349.

§Med. Statistics, P. M. G. Bureau, Vol. I, p. 372.

ANATOMY.

A few of the anatomical characteristics of umbilical hernia may with propriety be noticed now. The shape and size of the tumor are variable, according as the subject is obese or the reverse; in the fat subject it is spherical, broader at its base and less prominent; in the thin person it is usually free and pendulous. These hernia sometimes attain an enormous size, particularly may they do so in women, who, from having borne many children, have pendulous abdomens.

It was formerly supposed that *exomphalos* was devoid of a true hernial sac, many of the older surgeons of great renown having denied its existence. But it has been clearly demonstrated that umbilical hernia is not only furnished with a true peritoneal sac, but it possesses also a more superficial investment, derived from a condensation of the surrounding cellular tissue.* It is, however, often the case that the coverings of this hernia are so thin, and particularly in old cases, portions of the sac become so absorbed as to make it difficult to trace on the front of the tumor; circumstances which should caution the surgeon in operating for umbilical hernia; otherwise he may wound the intestine with the first stroke of the knife. In *exomphalos* the sac usually contains both omentum and intestine, rarely intestine alone, and still more rarely the liver or other abdominal viscera.

Sir Astley Cooper† asserts that he has never seen the umbilical hernia in the adult, but that it contained omentum, though Sir William Lawrence reports a case upon which he operated with success, which contained small intestines only.‡

“The transverse arch of the colon is the bowel most frequently protruded: but the small intestines are also frequently found in the sac, and in some unusual instances the coecum.”§ Mr. Holmes states that he has seen nearly the whole intestinal canal in the sac enveloped by omentum.

DIAGNOSIS.

The diagnosis of umbilical hernia cannot, ordinarily speaking, be attended with great difficulty. It usually begins as a very small

*Lawrence on Ruptures, p. 409.

†Sir A. Cooper on Hernia, 1814, p. 261.

‡Lawrence on Ruptures, 1843, p. 411.

§S. Cooper, First Lines, 1822 Vol. II, p. 14.

tumor at the navel, which is easily returned, but re-appears upon removing the pressure and directing the patient to cough. As it increases in size it gravitates and becomes pendulous in the thin subject, and its boundaries can be readily defined. In the obese individual, however, the case is not quite as simple, since the tumor may become buried in the fat, and extend itself between the integument and muscles, without causing external swelling. Gross relates a case of this sort which became strangulated, and was overlooked, but the autopsy proved it to have been the cause of death.

Sometimes, says Mr. S. Cooper,* a tumor grows from the navel, and puts on the appearance of an umbilical hernia ; also a large collection of hydatids within the liver, or upon its surface, sometimes give rise to a tumor at the side of the navel, which is liable to be mistaken for an *exomphalos*.

“ Scarpa,” says Mr. S. Cooper, “lays down with great accuracy, the distinguishing characteristics of both the true umbilical hernia, and of other cases which occur in the *linea alba* near the navel. The first disease, says he, whether met with in the infant or the adult, has a circular neck, or pedicle, at the circumference of which the tendinous margin of the umbilical ring can be felt with the end of the finger. Whatever may be the size of the tumor, its body always retains nearly a spherical shape ; nor can any wrinkle of the skin, nor anything at all resembling the cicatrix of the navel be observed, either upon the convexity or upon the sides of the swelling, the skin being a little paler and thinner at some points than others ; on the contrary, in a hernia of the *linea alba*, the neck of the swelling is of an oval shape, like the fissure through which the protrusion has taken place. The tumor itself is also constantly of an oval form. When the finger is pressed deeply round its neck, the edges of the aperture in the *linea alba* are perceptible ; and if the hernia be *very near* the navel, the umbilical cicatrix may be seen on one of the sides of the swelling, a *sure indication* that the viscera do not protrude through the umbilicus itself.”†

*First Lines, 1822, p. 12.

†Cooper's First Lines. Ed. 1822, Vol. 11, p. 11.

Before the time of Petit, as I have before remarked, all umbilical hernia were supposed to protrude through the opening of the navel. While asserting this fact still to be true with regard to infants, he says: "I would not wish to be understood to assert, that, in adults, the parts never issue out of the umbilicus; but as I have seen this sort of case only twice in my life, this small number compared with the great opportunities I have had for seeing umbilical hernia, authorizes me to state that out of one hundred of these ruptures, not two happen through the opening of the navel, but the protrusions take place above, below or on one side of that part."* Mr. S. Cooper believes that in adults, the protrusion happens more frequently above than below the umbilicus, which, according to Scarpa, is due to the fact that the upper half of the *linea alba*, extending from the xyphoid cartilage to the navel, is naturally broader and weaker than the lower half, while the recti muscles also become situated nearer together as they descend from the navel to the pubes.†

PROGNOSIS.

When the umbilical hernia becomes strangulated it is the almost universal opinion among authors, that the prognosis is much more unfavorable, than in the inguinal or crural varieties. "Several of the best practical writers all concur," says Mr. S. Cooper, "in one important statement, which a prudent surgeon should constantly recollect, viz: that the *exomphalos* and hernia of the *linea alba* are less subject to true strangulation than the generality of other ruptures; but, that when it unfortunately takes place, the symptoms are more intense, and the accession of gangrene more rapid than any other species of hernia."‡

M. Demarquay, says, in a paper published in the *Bulletin de Therapeutique* for Oct. 30, 1874, that he has never seen recovery follow the usual operation performed after attempts at reduction, which are ordinarily futile in consequence of the numerous old adhesions.

*Petit. Treatise on Surgical Maladies. Vol. 11, p. 250.

†First Lines Surgery. Ed. 1822. Vol. 11, p. 11.

‡First Lines. Ed. 1822. Vol. 11, p. 16.

This unusual fatality may be accounted for, in part, because of the subjects more commonly affected, such persons being unfavorable for operations; and in part, because of the general intestinal disorder, which exists with, or is speedily produced by the rupture; and again, in part, because of the proximity of the stomach, to which irritation and inflammation are readily propagated; but more particularly, as I opine, because of the too frequently great and inexplicable delay in making the operation for the relief of these cases.

TREATMENT.

The treatment of umbilical hernia in the adult resolves itself under three different heads, corresponding to the three several conditions under which the malady may be observed; that is to say, whether it be in the reducible, irreducible, or strangulated state. To the relief of the latter condition we shall deem it proper to restrict our observations at this time.

Now, as always, the chiefest factors in the treatment of strangulated hernia, are the taxis, and the knife. Whatever other therapeutic measures may be resorted to, can only be regarded in the light of aids to these two potent remedies; nor is it too much to assume, that their timely and skilful employment will bring successful results, in the vast majority of cases. The first object, then, in the treatment of a strangulated umbilical hernia, as indeed is the case in other varieties, is to attempt its reduction by the taxis. So much has been written and said of late in regard to the methods of its employment, that it would be a mere work of supererogation on my part, to enter into an extended detail of when and how to use the taxis; neither would it comport with the scope and limits of this paper to do so. But I may with propriety suggest a single rule of action which will apply to the vast majority of strangulated *exomphali*, viz: to make, under chloroform, one decided effort with the taxis, and be prepared to operate if it should fail to reduce the hernia; for nothing does more harm in such cases than repeated unsuccessful attempts at reduction. It has become a rule now-a-days with many eminent surgeons, never to employ the taxis except with an anæsthetic; for they believe that more harm than good comes of its use, unless all muscular resistance by the patient be

put out of the question. It would be well, in my humble opinion, if this principle was more universally taught in our schools. I need not stop to condemn prolonged attempts at reduction—the violent or forcible use of the taxis in the “reduction at all hazards” plan—since it can have no place in the treatment of strangulated umbilical hernia; for surely here, if anywhere, should the surgeon be gentle and self-restraining in handling the delicate structures, ever mindful of the fact that he may do them infinite harm.

In case the tumor be inflamed, with tender and painful coverings, the taxis will be wholly inadmissible, and the case passes at once under the domain of the knife. If perchance the symptoms either remote or local, be not urgent and some delay becomes advisable, while waiting it may be proper to make use of hot fomentations, enemata, or opiates; but the tobacco glyster of Sir Astley Cooper; gymnastic postulations with the head downwards and the feet “in the air;” cupping glasses and puncture of the intestine; these and other like and unlike things which have been so aptly styled by Sir James Paget as “ingenious wrong doings, more dangerous than the operation which they are intended to avert,” may be put aside as worse than useless in the management of the condition now under consideration.

“Purgatives” adopting the language of Sir James Paget, “I believe, had better not be thought of, if there be any marked signs of strangulation. There are no clear indications for determining the cases in which they might possibly be useful; and if they do no good, they may do grievous harm.”

The operation for strangulated umbilical hernia has been attended with great and unusual fatality from the earliest period of its history. Sir W. Lawrence affirms* that “the greatest practical writers have strongly represented the frequent fatality of the operation for strangulated exomphalos, and declares that the results of his own experience coincide entirely with their statements.” He further asserts that the majority of operations he has made himself, or seen done by others, have ended fatally. There appears to have been, among the older surgeons, a great dread of the early operation, for they pretty generally advise delay, and constantly

* Lawrence on Ruptures, Ed. 1843, p. 128.

warn of the probably fatal termination of cases in which operative measures are finally resorted to. Scarpa however strongly opposes this doctrine and advised that the operation be made early; attributing its ill success to its being performed too late. Sir Astley Cooper seems to have concurred in the opinions of Scarpa, judging from his practice, but he does not speak emphatically in regard to the matter. Authorities in our own time do not differ from those referred to in regard to the fatality of the operation. Hamilton declares* that the statistics of this operation present a more unfavorable result than do the statistics for either inguinal or femoral hernia. He further asserts that when it has been necessary to open the sac the result has generally been fatal. Gross says† “when we consider how disastrous have been most of the operations that have hitherto been performed for the relief of strangulated umbilical hernia, we can scarcely lay too much stress upon the protracted and judicious employment of the taxis.” That there are certain circumstances peculiar to this variety of rupture which render the operation often unsuccessful, cannot be doubted, the large size of the tumor, its free and direct communication with the abdomen, the immediate proximity of the stomach, and the condition of the patients who often suffer with the malady, are all unfavorable to success, and surround the operation with peculiar dangers. These, however, seem to me, arguments in favor of the early operation, rather than reasons for procrastination. To jeopardize to results of an operation, already singularly hazardous, even though with but a single jot of additional danger ought to be reprehended; and I am sure that in these days of improved abdominal surgery the statistics of this operation can be brought up to a much better showing than unhappily is at present the case, if the knife be appealed to earlier than has been the usual practice amongst surgeons, both ancient and modern.

Says Colles, “there is something peculiar in these hernias that causes peritoneal inflammation sooner than others; they are extremely different from all other hernias, and in nothing more so than in the severity of the mischief arising from them, and the

* *Prin. and Practice of Surgery* 1st Ed. p. 744.

† *System of Surgery*, p. 714.

rapidity with which they run their course." Sir Astley Cooper mentions a case which run its course and ended fatally 17½ hours from the commencement of strangulation.

As to the method of the operation little need be said, since one may cut up, or down, or sidewise and not be wrong; for the danger in this operation, according to Sir Astley Cooper, is in wounding the intestine, and not the blood vessels.

In the case reported, I chose the lower margin of the tumor for the incision as being more convenient and simpler in execution. In a larger and more pendulous hernia, the upper side would possibly be preferable, though I should say, speaking generally, that an incision through the abdominal walls in such immediate juxtaposition to the stomach is to be avoided if possible. Since the mouth of the sac is always, according to Sir James Paget, the seat of the stricture, the middle of the first incision may, with propriety, be right over it; and it may be made at the most convenient point upon the circumference of the tumor—above, below, or to one side, as the case may be—an opening from two to three inches long being usually sufficient. Caution should be observed in making the first incision, lest the intestine, owing to the thinness of the external coverings, be wounded by the first stroke of the knife. When practicable, the stricture may be divided outside the sac, but this is generally difficult, for the sac is thin, and there may be little tissue between it and the fibrous ring.

Gross strongly advises division of the stricture without opening the sac, "experience," he says, "having shown that its division is fraught with the greatest danger, from its liability to be followed with fatal peritonitis"; but if the operation be made early, this liability will be greatly diminished. Sir James Paget suggests the propriety, in large umbilical hernia, of making two incisions at opposite borders of the ring. If the attempted division of the stricture external to the sac be unsuccessful—and the trial should not be prolonged, since it is a good thing to succeed in, but a bad thing to fail in—the sac itself should be opened by an incision large enough to admit the passage of the finger, along which an ordinary hernia knife is introduced, and the stricture divided according to the usual rules governing the operation for strangulated

hernia. "In dividing the orifice of the hernial sac and the *linea alba*," says Sir Astley Cooper,* "there is no risk of cutting through any vessel of sufficient consequence to endanger life; for it is refining upon anatomy to mention the umbilical vein or arteries in this operation, as the latter two are mere cords, and the former, even if it were opened and divided, would be readily closed by a dossil of lint."

Strangulated umbilical hernia is liable to occur, as might be expected, during gestation; and pregnancy, according to Sir Astley Cooper, does not appear to add to the risk of the operation. Sir William Lawrence has operated successfully in the well advanced pregnant state, considering it not an objection, but rather an additional reason for rescuing the patient as quickly as possible from the imminent danger of her rupture.†

M. Demarquay, who has paid considerable attention to umbilical hernia of late, alludes, in the paper hereinbefore noticed, to the almost universally fatal issue of operations for strangulated *exomphali*, and describes a new operation by which he has been enabled to save one out of the four patients upon whom he has put into force. He extends an oblique incision from the middle portion of the tumor towards and on to the left side of the abdominal wall. He avoids the right side on account of the proximity of the umbilical vein; the middle line, also, as presenting an objection in the *linea alba*. The cellulo-adipose tissue is then divided, layer by layer, until the pedicle of the hernia sac is reached, when a small incision is made at the lower part of its left side; through this the left index finger is introduced until its end rests upon the orifice of the hernia. Along the finger a falciform bistoury is guided, and an incision is made implicating the left side of the circumference of the sac, and extending entirely through all the substance of the abdominal wall at this point. The aim of the operation is to relieve the strangulation by a *débridement* of three or four centimetres, and then if the intestine has not been too much compressed, and it, as well as the omentum, are still only in a state of congestion, the parts concerned will become disorged and their functions

*Sir A. Cooper on Hernia. Ed. 1844, p. 294.

†Lawrence on Ruptures. Ed. 1843, p. 131.

re-established, even though there be a little herniary peritonitis. It is difficult, however, to understand what the precise advantage of this plan is, and particularly is this the case when we consider the large percentage of failures.*

Mr. Thos. Annandale proposes † a somewhat novel method of operating for the relief of strangulated hernia, particularly applicable, as he thinks, to *exomphalos* in the adult, especially if the coverings are thin or ulcerated, or the hernia large. To quote his words, "The principle of this method consists in making a small incision through the abdominal walls and opening the abdominal cavity *near* the hernia, instead of cutting into the hernial sac itself or exposing it. One or more fingers are then to be inserted into the abdominal cavity, and the protruded structures contained in the hernial sac drawn back from within." He applied this method to a case of umbilical hernia in a male aged 61 years, in which symptoms of strangulation had existed three days. He made an incision three inches long midway between the xyphoid cartilage and the navel, and opened the abdominal cavity to the extent of an inch and a half. The hernial protrusion consisted of several inches of small intestines adherent to the sac, but these easily gave way, and the whole contents of the sac were brought out through the abdominal wound and examined. He also freely divided the firm neck of the sac with a probe-pointed knife introduced through the wound, returned the intestines and closed the incision in the usual manner. Three hours after the operation the patients bowels opened freely; the next day he was weak, though free from pain; but, says the operator, the exhaustion continued, and he died somewhat unexpectedly (?) forty-eight hours after the operation.

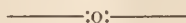
But, this paper has already exceeded the proper limits, and I must bring it to a close, leaving many points of interest in this important subject still untouched.

Therefore, in conclusion, permit me to remark that, while no originality has been essayed in the presentation of this subject, I have, on the other hand, merely sought to draw attention to a somewhat neglected species of hernia, by massing some of the sa-

*See Med. Times & Gazette, Dec. 5th, 1874; and London Med. Record, March 17th, 1875.

†See Edinburgh Med. Journal, Sept. 1873.

lient features in the teachings, writings, and opinions of recognized authorities thereupon, and finally, to advocate, in general, the early operation for the relief of strangulated umbilical hernia in the adult.



ART. II.—Medical Society of the County of Albany.—Semi-Monthly Meeting, Nov. 6th, 1878. Reported by T. K. PERRY, M. D., Secretary.

The Society met at the usual hour and place, at the city hall, in Albany, to hold the first of its semi-monthly meetings for the season, the custom being to meet twice a month during the interval between the annual meeting in October, and the semi-annual in May.

The President, Dr. F. C. Curtis, called the meeting to order, and read an inaugural address. After referring to the fact that the work of the seventy-third year of the Society commenced with the meeting, and expressing thanks for the honor of being elected to the office, and the hope that "the meetings might be a gathering place for all the experience which every day brings to individuals," he made a number of propositions, some of which being of general interest, are as follows :

Why should not this Society be an influential power in the community? I think no one can tell me why it should not; I can easily see why it should. It is a trite saying that the medical profession is the conservator of the public health, and any one who gives a moment's thought to the history of its work in the past and sees the lives saved by vaccination, and the developed subject of hygiene in all its directions, will at once say this is true. The knowledge as to how to prevent disease, as far as it has reached, lies, equally with the knowledge how to cure it, with our profession. I do not know that any member of our guild has ever raised the question whether prevention of disease would not diminish the amount of work for which we are paid—the curing of it. It is required of a liberal profession that it should be liberal, and the demand cannot be stronger on any than it is on ours, since the power for good is greater. For the whole matter, as a whole, of

dealing with disease—its history, its causation, its mode of development, under what circumstances it develops most, and how it is to be reduced to a minimum—its prevention and its cure—lies altogether in the hands of medical men. It is a subject lying close to the surface in the minds of all men, it is the great bane of humanity, and yet none have a practical knowledge of it excepting us. It is our study and work to make our fellow-men as free from it as possible.

Handling then, as a familiar subject, this one of disease, a subject that all allow to be so intensely important, does not the way appear clear how a medical society can, as a society, make itself highly useful to the community in which it is centered, and, in so far as it is useful, influential? Have I not hinted what should be a laudable ambition of this society? But has it heretofore lived up to what should be its duty to this community, and has it attained that point of influence which might be its due by an inherent right? I think not. To my knowledge, no question of hygiene has ever been submitted to its discussion but once, when the common council asked its opinion in regard to the use of the river water for a city water supply, and then its opinion was neither waited for or treated with any respect. There was a question which naturally fell to us upon which to give a weighty and respected opinion, but we had not then, nor since have we, as a society, won the right to consideration even by action in such matters.

My first proposition then is, that this society owes a duty to this community, at the point where it touches it, in regard to hygiene and the conservation of the public health, and that by attention to this it will give itself a weight, and secure attention to itself from its surroundings, that will accrue to it in no other way. To make a start in effecting this, I submit that, first, a committee of influential members who have made the subject more or less a study, be appointed from year to year, a standing committee on hygiene, and the relation of the profession to the public; that this committee put itself in communication with the health authorities of the city and county, and with the State Society Committee on Hygiene; that they make a special study of the topography of the county, of the drainage of the cities, of the condition of the

houses here as to drainage, dampness, etc.; that they keep close note of prevailing diseases, especially zymotic, the locality and center of such as may be endemic or epidemic; that they look after the condition of the schools as regards the care for the health of the scholars, and the amount of transmission of disease to them from infected places, (a point we frequently have in question,) and in various ways, by the authority of this society, to press itself forward to investigate the lack of healthfulness of localities, and suggest remedies. Is it not apparent that such a committee, filled with a personal interest, desirous of the public good, and anxious to facilitate the best interests of our calling, might accomplish very much, and little by little push into public notice the benefit of the society to the people, gradually winning for it a place of earnest appreciation and respect in the public mind. It may even be that at some time, instead of a Health Board of Aldermen, we may have in Albany, one of physicians, with all the autocratic powers the law gives to it. But no committee could do this work single-handed; it must have the co-operation of the entire society and the assistance of every individual. Members should report to it all cases of zymotic disease, all suspected houses, all stagnant pools, schools that are admitting infected children, and, if necessary, ask their assistance to correct prevailing evils. In making these suggestions regarding the duty of this society to this community, I do not wish to ignore the fact that we have already a committee on hygiene, which we do have in pursuance of the wish of the State Medical Society, but to propose making it more useful to ourselves, and in the various relations of the profession, to the public.

The following extract from a letter by Dr. W. C. Wey, of Elmira, whose sanitary work in the schools of his city is well known, in reply to an inquiry concerning the part taken in public hygiene by the Medical Society of Chemung County, will greatly add to the weight of my own words. He says :

“The initiative in all matters of school hygiene and general hygiene, as it applies to individuals, families, trades, municipal affairs, such as the construction of private and public buildings, sewage, the filling up of low lands, interference with natural water-courses,

&c., &c., should come from the medical profession, through the agency, and by the authority of the various organizations which constitute guilds, as it were, for concerted action in modifying popular sentiment, and in hastening processes of reform. In regard to Boards of Education, it is highly important that medical men should be represented in them. An extensive field of inquiry and improvement in matters affecting not only the health of children, but the efficiency of schools is thus open to medical scrutiny, and the correction of errors is within the power of persistent professional endeavor. I can only mention to condemn the modifications of municipal law by which aldermen in cities, sitting in council, are clothed with authority as Boards of Health. The impotency of the Common Council, acting as a Board of Health, has been illustrated during the course of an epidemic of diphtheria in this city, at this time in full force, which prevailed for more than a year before official action was taken in regard to it, and such action as has been taken is unwise, unsanitary, halting and half-hearted. * * * * I hope that your society will adopt measures in connection with this subject which will advance the interests of sanitary science, not only in the city and county of Albany, but in a more comprehensive manner, looking towards the creation of a State Board of Health, about which much might be said."

I have a second proposition to make—one that relates to our own private advantages. It is that we have another standing committee—a committee on Pathology. This may well be a large committee, sufficiently so to compose a respectable meeting of itself, to discuss material presented to it directly, or through the society. It should be made up of those specially interested in this study. As they may see fit, reports might be presented of the results of their investigations to the society.

Now I know that it has been argued that a County Medical Society cannot, from its nature and composition, be made a scientific success. It is said that, being an incorporated society, almost necessarily including in its membership all physicians in the county limits, the State law, at one time, rendering this obligatory, and it being still considered a point of honor for all regular physicians

to join their county societies, its function is principally to gather in a body, the reputable medical men in a civil or business way, to put on record by membership in it that a man is a regular physician, to carry out the laws as imposed upon it, and from the very fact that it contains all, that its elements are too diverse, and contain too great a lack of sympathy of mind to make it possible for it to devote itself to study and scientific advancement. And, really there may be truth in this, and there is great need that present feeling, unkindly criticism, discussive talk born of too little reflection on the subjects announced, and all jarring elements should be held in check. But if we come together, all of us, with the desire to learn something, and with study of the subjects to contribute something, I can see no reason why the county society should not fill all the indications aimed at by any form of medical society. I think this may be made more easily possible, by having such a committee as I have indicated, for the more careful study of the abstruser subjects that may come before the society.

The address contained other propositions of a more local character—that a nominating committee be elected; also a committee on registration, whose duty it should be to carry out the suggestions of the State Society, and also have charge of the society Chronological list, and print the Annual Register; calling attention to a by-law of the State Society requiring the Board of Censors to examine into the educational qualifications of young men proposing to commence the study of medicine; and also to another resolution requiring that five copies of the State Society Transactions be taken for each delegate sent from the county, and proposing that the annual dues be reduced to the legal sum of one dollar. In conclusion, the assistance of every member was solicited, to further the efforts of the executive officers to make the year a profitable one in every way to the society.

On motion, a committee on the President's Address was appointed, which subsequently reported, favoring the various propositions submitted.

A committee appointed at a former meeting to examine into the status of members not residing in the county limits, under the code of by-laws recently adopted, made a report. The article

bearing on the question is as follows: "Any member, not in arrears with the society, who may permanently remove from the county of Albany, shall be known as a non-resident member. Such members shall not be required to contribute to the funds of the society; shall not vote at any election, be eligible to any office, or receive notices or publications from or through the society, but, in all other respects, shall enjoy every right and privilege of a resident member. Physicians residing out of the county may be elected to non-resident membership."

After reviewing the history of the matter, which led to the incorporation of this article in the by-laws, and giving the action of the State Society upon it, the committee came to the following conclusions: That, under the by-laws, no one not a resident of the county could be elected to full membership; that any one who at any time in the past had been elected a member while residing in the county, and subsequently removed from it should be classed as a "non-resident" member; and that those who had been elected members while residing out of the county could not be construed by this by-law to be "non-resident" members, but must be considered as full members, and their status not affected. It was proposed that it be put to their option whether they continue as such, or resign to "non-resident" membership. Of these there were seven, living just over the river in Rensselaer County. The report was adopted.

Dr. S. B. Ward then read a paper entitled "A case involving difficulties in determining the possibility of conception, and subsequent diagnosis of pregnancy."

This is to appear in a forthcoming number of the *Obstetrical Journal*.

The points in this paper which were especially significant from their tendency to baffle diagnosis, were:

1. The facts admitted by both parties, that there had never been connection, the nearest approach thereto having been contact of the parts merely, the emission taking place entirely outside the vulva.

2. The very natural and reasonable supposition that the non-appearance of the menses in December was due to the severe cold and general illness of the patient at the time.

3. The severe pains experienced at the January epoch so characteristic of uterine contraction, were no more severe, and differed in no respect from those occurring two years previous, when the patient's virginity was beyond question.

4. The occurrence during this time of a severe and protracted attack of Intermittent Fever, accompanied by an unusually high range of temperature, tended to embarrass and render still more obscure all efforts at diagnosis.

DISCUSSION.

Dr. J. S. Mosher thought the case in many respects very unusual. Recalled a case in his own practice, of an unmarried woman in whom pregnancy existed, there never having been contact. Did not think the cessation of the menses any criterion to be guided by.

Dr. Van DerVeer spoke of a case where a young lady of seventeen became pregnant without ever having complete intercourse. also of one where a tramp had attempted an outrage, but had almost entirely failed in his purpose, owing to the victim's struggles. She, however, became pregnant, and was confined at term.

Dr. J. L. Babcock mentioned a case recorded in the *Edinburgh Medical and Surgical Journal*, of a man whose penis had been amputated close to the pubis, who, nevertheless succeeded in fecundating his wife.

Dr. E. R. Hun, reported a remarkable case of what he believed to have been protracted gestation. The date of expected confinement was April 23d. Labor did not, however, supervene until August 4th, of same year. Knows no other explanation of the discrepancy.

Dr. S. B. Ward thought Ovulation and Menstruation in some instances to be separate and distinct. Concerning the longevity of Spermatozoa, thought it a settled point that they could exist under certain conditions for eight days at least.

Dr. F. C. Curtis, in speaking of fecundation, said he believed that the prime factor consisted in the individual motion of the spermatozoa.

Following this discussion, Dr. J. S. Mosher spoke with especial

reference to the Metric System and its no doubt eventual adoption by all nations; and to further its more general use in our own community, as well also to more thoroughly familiarize ourselves as professional men, with its advantages : Moved—"That a committee be appointed to consider and report at a subsequent meeting, the best method whereby such a change could be secured.—Carried.

COMMITTEE.

Drs. J. S. Mosher, E. R. Hnn, J. L. Babcock.

There being no further business before the society it was declared adjourned.

-----:o:-----

Miscellaneous.

WAR DEPARTMENT
SURGEON GENERAL'S OFFICE, }
WASHINGTON, September 28, 1878. }

General Joseph K. Barnes, Surg. Gen. U. S. Army.

GENERAL,—I have the honor to submit the following suggestions with regard to the approaching United States Census, and to request that if they shall seem to you worthy of attention they may be brought to the notice of the congressional committees which now have the subject under consideration.

Having been consulted on certain points relating to the mortality statistics of the last census, I have given special attention to their probable value as affording a means of judging of the condition of the public health, and of the prevalence of certain causes of disease in different localities. and, as a result of this examination, it appears to me that, interesting as they are, it would be possible to obtain data much more valuable, from both a scientific and economic point of view, in relation to the health of the people of the United States.

As is pointed out by the Royal Sanitary Commission of England, "however complete the registration of deaths may be, it can not give a fair estimate of the sickness which is not fatal, it can not indicate where or how these are to be prevented, it can not tell the cost which is worth incurring for their diminution."

It is probable that results of the greatest interest and value might be obtained from a record of sickness, and especially of those forms which are known to be due to contagion or to special local conditions.

So far as I can learn the only attempts to obtain a registration of disease in connection with a national census have been made in Ireland, where the diseases with which each individual is suffering on the day of the count is recorded; and in Portugal, where a query is inserted as to sickness, but in what precise form I have not been able to ascertain.

As chairman of the Section of Hygiene and State Medicine of the American Medical Association, I have corresponded with a number of the members of the Section and with other skilled sanitarians, all of whom unite in the opinion that it is possible in the next census to obtain some data with regard to disease, which will inaugurate a new branch of statistics in this country, and that it is highly desirable that the General Government should take the lead in this matter.

The principal difficulty has been to obtain substantial agreement as to the questions upon which information is most desired, keeping in view the fact that these questions are to be asked and answered by unprofessional men.

As the result of the conferences above alluded to, and of careful study of what practicable as well as what is desirable, I venture to suggest the following five queries as being, if not the best, at least such as will bring out a vast amount of information which will be extremely interesting and useful to the political economist, the sanitarian and the physician.

The amount of information which moderately complete answers to them will give, is not to be estimated from the questions themselves only, for it should be remembered that of each individual to whom these queries apply, the age, sex, color, parentage, and occupation are also recorded in the schedules now in use, and hence the influence of these conditions separate or combined upon the diseases to which my proposed queries relate can be made to appear in various ways.

The queries suggested are as follows:

1st. Number of days during past year in which the person was unable to follow his or her usual occupation on account of Disease (D) or Injuries (I). (Attendance at school considered as an occupation.

2d. Is the person sick on the 30th day of June; if so, name disease or injury.

3d. Is the case being treated in Hospital (H), by a physician from a Dispensary or Public Charity (C), by a private Physician (P), or without a Physician (N).

4th. Has the person during the past year had any of the following diseases. viz.: Small-Pox or Varioloid (S P or V); Scarlet Fever (Sc); Measles (Me); Diphtheria (D); Typhoid Fever (T P); Malarial Fever (M F); (includes Ague, Bilious Fever, and Remittent Fever); Yellow Fever (Y F); Acute Lung Diseases (L D);

(includes Lung Fever, Pneumonia, and Pleurisy); Acute Rheumatism (A R); Cerebro-Spinal Meningitis (C S M).

5th. What has been the cost to the person (or head of the family on his account) during the past year from sickness, in—

a. Loss of wages or salary?

b. Cost of medical attendance, medicines, and nursing?

These queries for the most part are self-explanatory. The second question is that used in the Irish census, the name of the disease being entered in the person's own words (in Ireland it is often entered in Irish) leaving it to an expert at the central office to classify as best he can. The fifth query can in most cases be answered only approximately, but for the working classes, at all events, the answers will be near enough to the truth to be of value.

Very respectfully your ob'dt servant,

(Signed)

—*Am. Med. Bi-Weekly.*

J. S. BILLINGS,

Surgeon U. S. Army.

—:O:—

The Treatment of Diphtheria.

Paris, as our readers are aware, has been, during the last two years, the seat of a formidable epidemic of diphtheria, and the continued prevalence of the disease during the end of the last and the commencement of this year has led to the publication of the experience of several physicians regarding its treatment. Their statements have been summarised by Dr. Ferrand in a recent number of *L'Union Medicale*. It is hardly necessary to say that none of the recorded experience is in favor of the notion of a specific remedy, but the characteristic of the therapeutics of the present day, the use of antiseptics, is strongly marked in the recommended practice. Antiseptic applications have here one of the most obvious and simple of their fields, on account of the nature, constancy, and accessibility of the peculiar anatomical features of the disease. Tannin was employed as a local application by Trousseau, and its use in a somewhat novel fashion has been recommended by Dr. Créquy. He employs inhalations of steam from boiling water in which tannin is suspended. The vapor of the water carries with it a considerable quantity of tannin, although whether enough to exercise an appreciable influence on the exudation is somewhat doubtful. Salicylate of soda has been given internally by M. Cadet de Gassicourt, but without any satisfactory results, and salicylic acid was equally useless in the hands of Dr. Bergeron. Carbolic camphor has been praised by Dr. Soulez. This is a solution of twenty-five grammes of powdered camphor dissolved in one gramme of alcohol and nine grammes of carbolic acid. It is employed pure, or mixed with oil of almonds, as a local application to the false membrane, which is

said rapidly to separate and disappear, leaving behind it a simple ulceration which quickly heals. No remedy, however, has received so much commendation as an old one—chlorate of potash. It has been strongly recommended in the past by many authorities, especially in Paris by Isambert, and Seeligmuller has lately insisted afresh on its value. He gives it in solution at least every hour, and pins his faith upon it so exclusively as to consider all other treatment necessary only for their “useful moral effect upon the parents.” The removal of the fetor, the gradual disappearance of the false membranes, the reparation of ulceration, and rapid improvement in the general state, are the effects attributed by Seeligmuller to chlorate of potash. This last effect has been ascribed to a fancied power of carrying oxygen to the blood, which contains but little, in consequence of the action on it of the diphtheric bacteria. Its utility is corroborated by Ferrand, who, however, doubts its influence on the general state of the patients, and ascribes its action rather to its excretion by the salivary and pharyngeal glands. He has observed sometimes that the stomach does not bear it well, and even rejects it constantly. Buequoy and Blache also recommend it. Cadet de Gassicourt made a comparative trial of chlorate of potash, cubebs, and salicylate of soda, at the Hospital Stc. Eugénie, and does not hesitate to accord the first place to the chlorate. Cubebs and copaiba have, however, found an advocate in Trideau, who recommends, to reduce the difficulties of administration to a minimum, that they should be masked with sugar and Malagar wine. Tincture of eucalyptus was employed and recommended by Waleker; it was made by diluting ten grammes of alcoholic extract of eucalyptus by thirty-eight grammes of syrup, and was given after an emetic. All these agents thus act chiefly by modifying the affected surface, and their supposed action might be termed a “local alteration.” Actual caustics have of late fallen into disrepute, although nitrate of silver is still recommended by Guillon as an application not only to, but around, the false membranes; a method deprecated by Ferrand, on the theoretical ground that the irritated surfaces become the seat of fresh membrane, like a similar surface elsewhere; and he joins Dr. Rose Cormack in advocating the simplest local application—glycerine of borax or a weak solution of hydrochloric acid, lime-water or sulphate of soda; and he recommends the alternation of these very inoffensive applications.—*Lancet*.

————:o:————

A NEW NERVE.—In a communication to the French Academy, Cyon claims that the eighth pair of cerebral nerves contain two nerves of entirely distinct senses—the auditory and the nerve of space (“Raumnerf”). He considers the latter the source of all our ideas of extension, and of the three dimensions of space.—*The Doctor*.

The Proposed National Public Health Board.

Active measures are in progress toward the establishment of a National Public Health Board, for the purpose of improving public hygiene, for carrying out scientific and systematic investigation into the causes and preventive measures of epidemic, contagious and infectious diseases, and in collecting the vital statistics of the United States on some uniform and general plan. A memorial has been drawn up and will be presented to Congress with this object.

It is extraordinary how backward this country is in these matters. The indifference with which all subjects of State medicine are treated by Congress and by State Legislatures would seem to betoken a cynical indifference to human life, health and happiness, on the part of those elected to protect and further these aims. But, in fact, such an interpretation would be an unfair one. The neglect of such subjects arises from ignorance of the vast importance of sanitary science to the welfare of the commonwealth, and extends to the homes and health of the legislators themselves. Last winter we were present one day in the House of Representatives, when one member requested permission of the House to bring before it a matter relating to the heating and ventilation of the chamber, which, he added, was of immediate moment, as involving the health of members. In spite of this, objection was made to the introduction of the subject, and the order of the day was demanded.

This summer has taught a lesson which it seems will bear fruit. The loss by the yellow fever epidemic, one way with another, is set down in round numbers at *two hundred million dollars*. Say that this is a willful exaggeration, and divide it by eight, and there is left a loss in a few months of twenty-five million dollars. Now a most efficient national board of health, with all its officers of able men, with its machinery in good working order, with ample means to print and distribute its results, would cost less than half a million dollars annually. In other words it would cost for fifty years far less than this epidemic has cost in five months! And of its good effect no intelligent man will doubt. We do not hesitate to say that in the future no epidemic of yellow fever equal to that of this summer would ever again visit our land, were such a board organized as it should be, with power to enforce its decisions.

But the Memorial before us asks for no such sum as we have mentioned. Indeed, its request is for a sum so small that any hesitancy in giving it would be inconceivable. It asks for *thirty thousand dollars*. And for what purpose? We quote the proposed organization of the board and the duties it proposes to perform. The provisions are:

I. That the board shall be constituted by one medical officer from each of the following named departments, namely: The medical department of the army, the medical department of the navy. and

the marine hospital service, and of two physicians from civil life, selected on account of their knowledge in matters pertaining to public health. That the medical officers of the government services for this board shall be detailed by the secretaries of war, of the navy, and of the treasury respectively, and that the three officers so designated shall select and recommend to the President, for appointment, the other two members of the board.

II. That the board so constituted shall be known as the United States Public Health Board, and that its duties shall be to obtain information upon all matters affecting the public health; to consult with the superintendent of the census with regard to the disease and mortality statistics to be collected and prepared under his direction; to advise the several departments of the government, the executives of the several States, and the commissioners of the District of Columbia, on all questions submitted by them, or whenever in the opinion of the board such advice may tend to the preservation and improvement of the public health. To establish a standard of the qualifications which should be possessed by a municipal health officer, to examine those who may present themselves for examination as to their fitness for such a position, and to furnish suitable formal certificates to those found to be properly qualified.

III. That the detailed officers shall receive their usual payment allowances from their respective departments, and that the two physicians selected from civil life shall each receive compensation at the rate of five thousand dollars per annum from the funds appropriated for the use of this board. That the ordinary sessions of the board shall be in Washington, where it shall have its office, and that at least one member of the board shall be always on duty during the usual office hours.

IV. That the board shall prepare and present to Congress an annual report of its operations, with such recommendations as may seem to it advisable.

V. That when deemed specially desirable by the board it may send one or more of its members to any point within the United States, for the purpose of investigating a disease or other matter especially affecting the public health, and that the actual traveling expenses of the members so sent shall be paid from the funds appropriated for the board.

For the present such an organization is the most that we can hope for. But when this nation deserves to be called an *enlightened* one, when our legislators are awake to their real duties to their constituents, when the government is actually carried on for the greatest benefit of the people, we shall have a department of the National Government as important as that of War, or for Internal Affairs, with a Secretary of Sanitation in the cabinet, and as a result, epidemic pestilence will be as impossible then as an extensive famine is now.—*Medical and Surgical Reporter*.

An Eulogium on Doctors.

Union Méd., September 5th: In his report to the Académie Française on the Monthyon Prize, Professor Dumas, the distinguished chemist, thus expresses himself concerning medical practitioners, who daily furnish proof of their humanity, courage, and abnegation: "If virtue consists in absolute devotion to duty, do we not find the most certain signs of this in the repeated traits of courage presented to our admiration by medical practitioners, interpreting the oath of Hippocrates in the most noble sense, exposing their own lives in a struggle without glory, in a combat without illusions, surrounded by patients to approach whom may be mortal? Is the danger uncertain? How numerous, on the contrary, are the examples which attest that in certain affections which are but too common it is imminent. Do you ever find a single practitioner hesitate in the accomplishment of his mission? Never! Whether they are aged and enlightened by the experience of the long past, whether they are starting on their career animated still by all the confidence of youth, whether they are living alone, which might excuse selfishness, or married and fathers of families, which would authorize prudence, they are never found to falter. Long, however, would be the list if it had to furnish the names of all these victims of professional duty, of all these practitioners 'dying in front of the enemy,' as they say at the Ministry of War."—*Louisville Med. News.*

————:0:————

English Quarantine.

Medical Times and Gazette: It is satisfactory to find that the government has not been unmindful of the possible consequences of the present epidemic of yellow fever in America, but has issued the following circular through the local government board to the port sanitary authorities: "I am directed by the president of the local government board to state that, in view of the epidemic of yellow fever which is now prevailing in certain parts of America, it appears to him desirable to draw the attention of port sanitary authorities in England and Wales to the possibility of the importation into this country of cases of this fever. Such experience as has hitherto been had in Europe of yellow fever, which is essentially a tropical disease, has shown that it does not spread except under very special conditions. On the rare occasions when it has extended from vessels arriving in European ports, its extension has appeared to be exclusively among persons on shipboard, or employed in the harbor, or living in the immediate vicinity; and per-

sons who have been taken inland sick of the disease have not communicated it to others. The present outbreak, however, appears to be of so malignant a character that no care should be wanting on the part of port sanitary authorities to meet the possible contingency of the introduction into this country of a malady so fatal. In England, besides other arrangements of the nature of quarantine that are made in respect of this disease, measures of isolation and disinfection of vessels infected with yellow fever are adopted by the commissioners of customs, under the orders of the privy council, as a part of their duties under quarantine acts. Port sanitary authorities, though not themselves charged under the quarantine acts with the duty of securing this isolation and disinfection, can, on occasion, render important service to the commissions of customs in executing these functions in regard to yellow fever ships. In the event of any case of yellow fever finding its way, notwithstanding the precautionary measures taken by the customs, into any English port, the action of the port sanitary authority should be the same as in the case of common infectious diseases of the country, viz: removal of the patient with all necessary precautions into a place of isolation, and the destruction or disinfection of any articles of clothing or bedding that may have been used by him. The board trusts that the port sanitary authority have already provided themselves with means of such isolation and disinfection; but if the authority have not already done so, the board would take the present occasion of again pressing upon them the importance of having such means at all times in readiness."—*Medical News*.

————:O:————

Editorial.

—————
 “We wish you a Happy New Year.”
 —————

We most sincerely and truly wish our readers a happy and prosperous New Year, and of course, presume upon their return of “Thank you, wish you the same.” Under ordinary circumstances that would be quite adequate return, but it is unnecessary to say, that resumption of specie payment changes the situation.

Our publishers call early, January 1st, and in an earnest tone announce their good wishes for the New Year. JOURNAL replies, thank you, wish you the same; No says Mr. Pub. we now require specie, we have taken your excuses, promises, good wishes—your *paper*, until we can't use it any longer, and are obliged to demand the legal currency of 1879. JOURNAL looks a little disturbed in the countenance, and slowly replies, My dear sir, specie payment

is attended with embarrassment and delay. Many of our subscribers don't pay in specie or any thing else. "Stop," says Mr. Publisher, I have had all I want of that—I have taken it of *some* of your subscribers for many years, and never a cent of anything else, and now if they read the JOURNAL as regularly as they receive it, post paid, and think as much of it as they seem to from the length of time since first subscription, they must be by this time *gentlemen* at least, and no *gentleman* will receive your JOURNAL a life-time and not profit enough by it, to be ready to report the payment of his subscription bill about January 1st, 1879, when every thing is to be paid in gold." JOURNAL rises up calmly and pacing the room thoughtfully, inquires of itself in an undertone, so as not to be understood, will our delinquent subscribers pay their bills? is there any possible way to reach their sensibilities? they have always been good friends of ours, and we have acquired a profound respect for them, and the question is now in point, can we rely upon them to satisfy the just claims of our publishers? No of course not, we have tried it too long, but we *will* try again, and if we fail, God have mercy on us all, as Abernethy said when first entering his lecture room and looking round upon the members of his class; and especially, God have mercy upon BUFFALO MEDICAL AND SURGICAL JOURNAL, and put it in the hearts of every delinquent subscriber to *pay his bill*.

:o:

Index Medicus.

A monthly classified record of the current medical literature of the world. Compiled under the supervision of Dr. John S. Billings, Surgeon U. S. Army, and Dr. Robert Fletcher, M.R.C.S. Eng. F. Leypoldt, publisher, 37 Park Row, New York.

The *Index Medicus* will record the titles of all new publications in Medicine, Surgery, and the collateral branches, received during the preceding month. These will be classed under subject headings, and will be followed by the titles of valuable original articles upon the same subject, found during the like period, in medical journals and transactions of medical societies. The periodicals thus indexed will comprise all current medical journals and transactions of value so far as they can be obtained. At the close of each yearly volume a double index of authors and subjects will be added, forming a complete bibliography of medicine for the preceding year.

The first number of the *Index* will appear in January, 1879.

It is not at present intended to index journals devoted to subjects of Chemistry, Pharmacy, Veterinary Medicine, and Dentistry, but the editors will select from them articles which have a bearing upon pathology and therapeutics.

In the description of new books *received*, the size, price, illustrations, place of publication, and publisher's name will be accurately given. Publishers are requested to send advance copies of their works to insure an early insertion in the *Index*.

Few words are required to demonstrate the utility of the projected serial. In its pages the practitioner will find the titles of parallels for his anomalous cases, accounts of new remedies, and the latest methods in therapeutics.

The teacher will observe what is being written or taught by the masters of his art in all countries. The author will be enabled to add the latest views and cases to his forthcoming work, or to discover where he has been anticipated by other writers, and the publishers of medical books and periodicals must necessarily profit by the publicity given to their publications.

Books, journals, and communications for the editors, from parties resident in America, should be addressed to Editors of the *Index Medicus*, Washington, D. C.

The *Index Medicus* will be published monthly, to range with the leading medical journals (which it supplements as a current guide to all), at No. 37 Park Row, New York. The subscription price will be \$3 per year, payable in advance. Prompt subscriptions in support of the enterprise are respectfully solicited.

Death of Dr. Heman P. Babcock of Oakland, California.

We have only space in this issue to chronicle the death of Dr. Heman P. Babcock of Oakland, Cal., which occurred in this city at the residence of Prof. Thomas F. Rochester. Dr. B. had been in declining health for the past seven months, and took the journey from Oakland for the purpose of consulting Prof. Rochester, his former Preceptor and friend, in whom he had the utmost confidence, and at whose hands he received every attention that love and skill could bestow, but all to no avail; he quietly passed away on the morning of Friday, Dec. 27th. The funeral was attended on Monday at 11 o'clock from the residence of Prof. Rochester.

We shall have more to say of Dr. B. hereafter.

THE POPULAR SCIENCE MONTHLY.—Contains monthly articles, on by far the most interesting topics known to scientific men, and we beg to call attention to the following notable articles in *The Popular Science Monthly Supplement* for December: Recent developments of Socialism in Germany and the United States. The Alcohol Question. A Symposium by three of England's most noted Physicians. Malt-Liquors—Their effect on Digestion and Nutrition. American Facts and Gladstone Fallacies. Outside of our own professional journals no publication interests us so much as this. Every Physician should read it.

—:O:—

URANINE.—This is the most recently discovered, and perhaps the most remarkable, of all the coal tar or aniline group of coloring substances, now so extensively used for the adornment of the finest fabrics. Uranine is said, by chemists, to be the most highly fluorescent body known to science. Its coloring power is astonishing; a single grain will impart a marked color to nearly five hundred gallons of water.

A most interesting experiment, which anybody may try, consists in sprinkling a few atoms of Uranine upon the surface of water in a glass tumbler. Each atom immediately sends down through the water what appears to be a bright green rootlet; and the tumbler looks as if it were crowded full of beautiful plants. The rootlets now begin to enlarge, spread and combine, until we have a mass of soft green-colored liquid. Viewed by transmitted light, the color changes to a bright golden or amber hue; while a combination of green and gold will be realized, according to the position in which the

glass is held. For day or evening experiment nothing can be prettier than these trials of Uranine, which are especially for the young folks: We are indebted for examples of the color to the editors of the *Scientific American*, who are sending out specimens, free of charge, to all their readers. The subscription to the paper is \$3.20 for a year, or \$1.60 half year; and a better investment for the money could hardly be named.

—:0:—

Books Reviewed.

Elementary Quantitative Analyses. By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aux-La-Chapelle. Translated with additions, by EDGAR SMITH, A. M., Ph. D. With thirty-six illustrations. Philadelphia: Henry C. Lea, 1878. Buffalo: Theodore H. Butler.

We think this work will be regarded with great favor by the student of Chemistry, as it seems to us invaluable in the laboratory of the practical Chemist. It is elegantly illustrated, and all the processes of examination are fully and correctly explained. We earnestly recommend it to our readers.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. VON ZIEMSEN. Vol. XVII. General Anomalies of Nutrition and Poisons. ALBERT H. BUCK, M. D., Editor of American Edition, New York: Wm. Wood & Co.

Professor H. Immermann, of Basel, treats in this volume of Hemophilia Scurvy and Purpura Hemorrhagica. These subjects are presented with great care and completeness. Professor R. Boehm, of Dorpat, treats of poisoning by metalloids, acids, alkalies and their salts, also by anæsthetics, carbon compounds, and by tainted articles of diet. His sections upon chloroform and ether merit careful consideration. He records the facts as obtained in reference to the use of these agents, with scientific exactness, and those who make use of anæsthetic agents cannot be too familiar with these facts. The foot notes added by the American translator are well appended, and form with the text a true and safe practical guide to the practitioner. Professor Nannyn, of Königsburg, treats of poisoning by the heavy metals and these salts. Professor H. Von Boeck, of Munich, treats of vegetable poisons.

The sections upon Arsenic, Atropine, Digitalis, Morphine and Ergot, are quite interesting to the reader, but we confess to a feeling that there is room for more thorough investigation of these subjects on which it is more desira-

ble than ever, that precise knowledge should be obtained. It is quite desirable for instance, that the good and bad effects of digitalis and ergot should be well understood, and the signs by which these effects upon general nutrition and special facts may be early and speedily recognized. It is a good foundation laid for further precise investigation.

On the Therapeutic Forces: An effort to consider the action of medicines in the light of the modern doctrine of the conservation of force. By THOMAS J. MAYS, M. D., Member of the Luzerne County Medical Society; Member of the Pennsylvania Medical Society, etc. Philadelphia: Lindsay & Blakiston. 1878.

This is an ingeniously written speculative essay upon Medicine as a *force*. The scope and intent of the work being very fully expressed by the following "Conclusion :"

In the foregoing chapters I have considered examples of the three great general classes of therapeutic agents, viz., the chemical and mechanical stimulants, and narcotics, and think that I have at least given some reason for the belief that all these varied, and in some cases opposite phenomena which are produced by these agents, are but the result of the action of forces, and, before coming to a close, I will make a brief recapitulation, and point out certain conclusions to which these deductions lead.

The animal body, then, is composed of organic molecules which in health are in a constant state of activity. This molecular activity is maintained in the natural way by chemical stimulants, substances which undergo oxidation in the body, and thus give free their force. In diseases, however, the ordinary chemical stimulants are not always capable of furnishing the requisite degree of molecular activity to the body; hence they are reinforced by others, like alcohol, the hypophosphites, etc., which possess a superior capacity for undergoing combustion. On the other hand the molecular activity of the body may also be enhanced by the mechanical stimulants—substances like quinia, ammonia, etc., which transmit their motion directly to the body without undergoing previous oxidation, and these are powerful adjuvants to the chemical stimulants in treating disease. And, again, we have especial mechanical stimulants of the nervous system, like opium in small doses, as well as special mechanical depressants of this tract of bodily tissue, like opium and alcohol in large doses. We thus find, then, that these three general classes comprise the action of many of our most reliable and important remedies, and it might easily be shown that the therapeutic action of many other substances would become intelligible if considered in a similar light.

By regarding our remedial agents as the embodiment of forces we can readily account for the cause of the great difference in the effects of small and large doses of medicines. It must, however, not be imagined that this two-fold action of medicines is confined to those which have been discussed in this paper, for it will be found that the majority, if not all of our therapeutic measures are subject to the same law. It will, also, from what has been said, be seen how unfair and even how censurable it is to define the action of a medicine without at the same time qualifying the quantity and the bodily conditions under which it so acts. It would be just as unwise for one to make the broad assertion that ipecacuanha is an emetic, while every one knows that in small doses it also relieves emesis and it is equally well known that in doses in which it ordinarily produces vomiting, it is also very efficient

in curing dysentery without displaying much, if any, of its emetic properties; and moreover, the recent researches of Dr. Rutherford and M. Vignal shows it to be a most powerful cholagogue, superior even to calomel and podophyllin. This is likewise true of aloes, for in large doses this substance possesses a decided cathartic action on the lower bowel, but in small doses it is also a tonic to this section of the alimentary canal. Instances of a similar character might be multiplied, but they would only serve to still further demonstrate the careless and unscientific spirit with which we treat our therapeutic forces.

From the foregoing, we likewise learn that all therapeutic forces when viewed from the standpoint of life, must either move in harmony with or in opposition to the vital forces. But we have also seen on the one hand that there are medicinal forces, of which quinia affords an example, which move in opposition to life generally, and do yet in small quantities have the power of enhancing the life process; while, on the other hand, there are others, like alcohol, which move harmoniously with the bodily forces in small quantities, but in large doses they become powerfully antagonistic to the latter. Hence, the chief and only true aim in the investigation of the action of therapeutic forces, consists, not merely in determining the action of each particular medicine, but the *degree* of force in each medicine which promotes or retards the bodily forces, *i. e.*, the action of small and large doses. But since therapeutics is, or ought to be, the science and art of curing disease, it follows that a complete knowledge of the action of these forces cannot be gained by a study of their effects on the healthy body, but these must be confirmed by observation and experience at the bedside, although much can be learned in a general way from physiological experiments or "provings" on the healthy human system, as well as on that of the lower animals. Indeed, one of the most promising avenues to the determination of the action of medicines consists in studying the influence of these agents on disease induced artificially in the lower animals.

I think these deductions illustrate the fact that the equality of cause and effect is as true when applied to therapeutics as to any other department of nature, and they furthermore impress on us more than ever the stern truth, that the medical man in pursuing his calling has to deal with the most intricate and delicate forces, which are potent for good or evil, and which require to be regulated by the most consummate skill and enlightened judgment. And, finally, I indulge in the hope that this feeble effort in placing the study of therapeutics on a firmer basis than it has heretofore occupied, may give an impulse to future inquiry in this direction; for just as soon as the medical profession rightly appreciates that the art of curing disease is controlled by invariable law, so soon will it be wrenched from the uncertainty of empiricism* and of charlatanism, and rise to the dignity of a science.

Transactions of the Medical Society of the State of West Virginia, 1878.

The above Volume is on our table and presents a bright and attractive appearance.

We should judge after an examination of the Proceedings and of the various papers presented, that our West Virginia brethren had an exceptionally fine meeting at Weston.

The lengthiest article is the one entitled, Continued "Report on Surgical Cases" by Dr. JOHN FRISSELL, of Wheeling. It is a plain straightforward

* It is far from my intention to underrate the valuable influence of medical empiricism, for to do so would be but heaping undeserved reproach on "the bridge that carried us over." One cannot call it an inheritance of "unalloyed blessedness," yet it certainly had its good side also.

narration of cases occurring in the author's practice. Such a paper is an absolute and valuable acquisition to the Profession, being the conclusions arrived at by a conscientious and pains-taking Surgeon, derived from a practice extending over a period of forty years.

We especially noted the cases of Traumatic Aneurism; in this class of distressing injuries the author has had considerable experience, giving no less than eleven illustrative cases, eight of the axillary, one of the femoral, one of the popliteal and one of the facial arteries.

Case 114 is one of an amputation of the arm, where an axillary aneurism existed in connection with injury of the axillary nerves and veins.

The Doctor's rule to amputate in such cases is one founded on good Surgery. We feel sure that many lives will be spared should it be generally adopted by the profession.

There has been some bad blundering in numbering the cases, as we find case 114, or at least the principal part of it given under the caption of cases 115, 116, 117 and 118.

A contribution on Psychological Medicine, by Dr. Camden, of Weston, is quite readable. Some curious details are given of the old methods of treating insanity which contrast very strikingly with the system now pursued. Speaking of the immense strides that have been made in psychological medicines, the Doctor enthusiastically predicts that we will soon be able to "elucidate and demonstrate the real essence of mind itself—that subtle, invisible something so nearly allied to Deity." We are afraid the Doctor is mistaken. Beranger, the French poet, asks:

Was ever such an ass as that,
Who hoped, by slicing mutton fat,
And pulling candlesticks to pieces,
To tell why *Light* should spring from *Greases*?
Yes—one—that still more precious fool,
Who, in the anatomic school,
Expected, with dissecting knife,
To learn from *Death* the laws of *Life*.

There are a number of other papers alike creditable to the Society and to their authors. "The Diagnostic Value of Symptoms," by Dr. John Huff, is full of good practical common sense, as is also a paper on Puerperal Insanity, by Dr. A. H. Runot. The paper entitled "Concerning the Dressing of Wounds" contains much useful matter in reference to Prof. Lister's antiseptic treatment; the author, Dr. W. H. Sharp, expressly states that his paper is to a great extent a compilation, but we are afraid that the general slipshodding of composition pervading the whole article will induce most seekers for information to go to head quarters.

Pres. McSherry's Address and the paper of Dr. M. S. Hall treat essentially on the same subject—public hygiene. We trust they will serve to help bring about the establishment of a State Board of Health in that young and far distant State.

The Vol. also contains reports of two cases of Extra Uterine Pregnancy, by two different authors, Drs. Brownfield and Boyd, both of which are interesting.

Books and Pamphlets Received.

A Manual of Physical Diagnosis. By Francis Delafield, M. D., and Chas. F. Stillman, M. D. Wm. Wood & Co.

Lectures on Localization in Diseases of the Brain. Delivered at the Faculté De Médecine, Paris, 1875. By J. M. Charcot. Translated by Edward P. Fowler, M. D., New York. Wm. Wood & Co., New York H. H. Otis, Buffalo.

The Principles and Practice of Surgery. By John Ashurst, Jr. M. D. Second Edition. Henry C. Lea, Philadelphia. T. H. Butler, Buffalo.

Lectures on Bright's Disease of the Kidneys. Delivered at the School of Medicine of Paris, by J. M. Charcot, translated by Henry D. Millard M. D., A. M. Wm. Wood & Co., New York. H. H. Otis, Buffalo.

Transactions of the Thirty-Third Annual Meeting of the Ohio State Medical Society, held at Columbus, May 14th, 15th and 16th, 1878.

The Testimony of Medical Experts. Annual Address of W. H. Philips, M. D., Kenton O., retiring President of O. State Medical Society.

An Abstract of the Laws of the State of New York, in regard to the Commitment of Insane to Asylums, their Detention and Discharge, and Comparison of the same, with the Statutory Provisions of England. By John P. Gray, M. D., L.L. D., Medical Superintendent of N. Y. State Lunatic Asylum, Utica.

Report of the Quebec Lunatic Asylum for 1876, 1877, also 1877, 1878.

Ninety-Sixth Annual Catalogue of the Medical School (Boston) of Harvard University, 1878-1879.

The Duties of the Medical Profession concerning Prostitution and its allied vices. Being the Oration before the Maine Medical Association at its Annual Meeting, 12th of June, 1878. By Frederick Henry Gerrish, M. D.

Address delivered before the American Medical Association at its Twenty-ninth Annual Session, held at Buffalo, June 4th to 7th, 1878. By T. G. Richardson, M. D., of New Orleans, President of the Association.

Transactions of the Medical Society of the State of West Virginia.

A Case of Acute Puerperal Inversion of the Uterus. A Clinical Description of a new instrument successfully employed, with remarks on the Mechanism of Restoration. By John Byrne, M. D., M. R. C. S. E.

Laceration of the Cervix Uteri. The Address in Obstetrics: Delivered before the Medical Society of the State of Pennsylvania. By Wm. Goodell, A. M., M. D.

On Gastro-Elytrotomy. By Henry J. Garrigues, M. D.

The Quarterly Journal of Inebriety—Hartford, Conn.

An Illustrated Catalogue of Microscopes and other Scientific Instruments, manufactured by R. & J. Buck, London, Eng.

Annual Report of the Pennsylvania Free Dispensary for Skin Diseases, 920 Chestnut St., Phil.

Fourth Annual Report of the Officers and Superintendent of Asylum at Walnut Hill, Hartford, Conn.; also Petition to the Legislature.

Twenty-third Annual Report of the Trustees of the State Lunatic Hospital at Northampton, Mass.

A Series of American Clinical Lectures, edited by E. C. Seguin, M. D. Vol. 3, No. 11. Two Lectures on Lister's Antiseptic Method of treating Surgical Injuries, by James L. Little, M. D.

A Series of American Clinical Lectures, edited by E. C. Seguin, M. D. Vol. 3, No. 13. The Diagnosis of Progressive Locomotor Ataxia, by E. C. Seguin, M. D.

The Scientific Lessons of the Mollie Fancher case, by Geo. M. Beard, M. D., New York.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

FEBRUARY, 1879.

No. 7.

Original Communications.

ART. I.—*On the Treatment of Chronic Catarrh of the Bladder, and of some forms of Acute Cystitis.* By THEODORE DEECKE, Special pathologist, New York State Lunatic Asylum, Utica, N. Y.

Acute cystitis and chronic catarrh of the bladder or cystorrhœa are not to be considered as stages of the same disease. Acute cystitis may develop, when neglected, a chronic catarrh, yet more frequently the latter makes its appearance as a characteristic chronic affection from the beginning. It is not the aim in the following pages to give a history and a description of the diseases which have been so well described in all their particulars in the "Treatise on the Diseases of the Bladder," by S. D. GROSS, 1851, and by other authors in this country and abroad.

As the most important direct cause in the majority, if not in all cases of chronic catarrh of the bladder, we must denominate the involuntary retention of urine in the bladder, a condition which may be brought about by various local or general disorders. Such

are, strictures of the urethra; hypertrophy of the prostate; paralysis from atrophy, or from morbid affections of the central nervous system; foreign bodies, which produce a decomposition of the urine in the bladder:—air and germs of microscopic forms of life.

The chronic catarrh usually develops in a slow, gradual and insidious manner, and the inflammation which accompanies the same is, at least in the beginning, almost always of a very mild grade; while in acute cystitis the symptoms of a severe and painful local inflammation, in early stages, point toward the site and the nature of the affection. In the course of the latter disease, however, morbid conditions may develop to some degree similar to those of the chronic catarrh, which may require the same interference in the way of medical treatment. This, for instance, will be the case when, as frequently occurs, for some length of time, only an incomplete evacuation of the bladder can be performed. The involuntary retention of urine, therefore, and its consequences is a feature in both diseases, and this may justify a consideration of both from a common point of view.

It has long been known that in chronic catarrh of the bladder as well as in acute cystitis of some standing, the urine which is passed is in an altered condition. Aside from being mixed with blood, pus or mucus corpuscles and degenerated epithelium cells, it is generally more or less alkaline in its character, emits a peculiar ammoniacal, often offensive odor, is rapidly decomposed, inside the bladder as well as out of it, and precipitates, either fresh or after a short standing, numerous crystals of the triple-phosphates and of urate of ammonia. A constant occurrence, furthermore, are micrococci or globular masses of bacteria (gliococci, Billroth), to the fermentative action of which the rapid decomposition of the urine must be ascribed.

It is evident, and has long been acknowledged, that the alteration and decomposition of the urine inside the bladder in these affections, especially its alkaline condition, the crystalline deposits, the growth of the bacteria, etc., that they all must act as steadily irritating agents upon the already inflamed mucous membrane of the organ. An important part of the treatment, therefore, for the last ten years has been directed with more or less success against

these urgent and uncontrollable influences. L. Wilcox* recommended the use of sulphite of soda. The urine was fetid, alkaline, contained pus and was passed every fifteen minutes. After the internal use of the remedy the urine became normal and could soon be retained for hours. Mineral acids were administered in these cases without success. Dubrueil† made injections into the bladder of silicate of soda (solution of 1 per cent.) in a case of hypertrophy of the prostate and had good results in preventing a decomposition of the urine. Th. Clemens‡ injected the urine of healthy persons into the bladder of patients suffering from chronic inflammation. He ascribed the good effects of it to the favorable influence of a healthy urine upon the walls of the affected organ!!! and even he found a successor in H. S. Purdon§. Benzoic acid, first recommended by Ure, was administered by Robin and Gosselin||, especially in cases of highly alkaline reaction of the urine. Benzoic acid is in the system transformed into hippuric acid and in place of carbonate of ammonia hippurate of ammonia is formed in the urine which is claimed to be less poisonous and less apt to form concretions than the ammonio-triple phosphates. Internal doses and injections of carbolic acid were first administered by Déclat¶ with remarkable effect. Braxton Hicks** recommended in acute stages injections of morphine; in later stages, nitrate of silver, tannin and chloride of iron. The first who studied the effect of salicylic acid, in doses of one to two grammes *pro die*, in cystitis with alkaline fermentation was P. Fürbringer††. According to his experience salicylic acid removes the causes and the products of the fermentation, but it does not arrest the formation of pus. Also injections of the acid have been tried by him without much success. The newest essay on the treatment of chronic catarrh of the bladder has been written by Max Schüller‡‡. Even the largest doses of salicylic acid had not the desired effect. Schüller puts the

*The use of sulphite of soda in chronic cystitis. Brit. Med. Jour., Sept. 19, 1869.

†Injections de silicate de soude dans la vessie contre l'état ammoniacal des urines. Gaz. des Hôp., 1872, No. 136.

‡Ueber Heilung chronischer Blasenkrankheiten mittelst Einspritzungen, etc. Deutsche Klinik, 1873, No. 7.

§Note on the treatment of cystitis, Dublin Jour., October, 1873.

||Traitement de la cystite ammoniacale par l'acide benzoïque. Arch. gen. de Therap., etc., 1874.

¶L'efficacité des injections d'acide phénique dans la vessie et de l'administration interne du sirop d'acide phénique dans les cas de cystite avec urines ammoniacales. Comp. rend. LXXXVIII, No. 4, 1874.

**The local treatment of cystitis in women. Brit. Med. Jour., 1874, July 11.

††Berliner Klinische Wochenschrift, 1875, 19.

‡‡Ueber die Lokalbehandlung des chronischen Blasenkatarrhes. Berlin, 1877.

most weight on the local treatment, and he distinguishes between remedies which prevent a decomposition of the urine and others which produce an effect upon the inflamed mucous membrane of the bladder. Of the first, carbolic acid had not in all cases the desired effect of producing an acid reaction of the urine. It is purely an antiseptic and gives good results in solutions of one to one and a half per cent. in higher stages of alkaline fermentation and in diphtheritic affections. Salicylic acid in solutions of 0.3—0.5 per cent, locally applied, gave better results than by internal administration. It is a good antiseptic and dissolves purulent deposits into a liquid emulsion which can be easily removed. It prevents an agglutination of the pus-corpuscles and acts favorably upon the catarrhal inflammation of the mucous membrane. It is less active against the glairy mucoid deposits. Hyper-manganate of potassa in solutions of 0.05 to 0.2 per cent. is a good antiseptic, yet only useful without pain in very weak solutions. There is no better medium for the purpose of dissolving the muco-purulent deposits than chloride of sodium in solutions of 5 per cent., by which a uniform emulsion is produced which can be completely evacuated. Nitrate of silver 0.5—1.0 per cent. and chloride of zinc 1. to 2.0 per cent. are recommended in ulcerative processes of the mucosa and copious formations of pus.

It is about two years ago that my attention was called to the almost constant occurrence of micrococci and gliococci in the urine of patients who suffered from chronic catarrh of the bladder or from those forms of acute cystitis which were accompanied by an excretion of urine of a neutral or alkaline reaction. This occurrence induced me to a series of experiments with different substances, prominently acids, for the purpose of studying their action upon the development and the growth of those organizations, and of exploring their influence upon the alteration of the liquid which served as their pabulum. The experiments were first made in open test tubes, and were repeated by excluding the air as much as possible. The pabulum was normal urine and urine of a patient who had been suffering a number of months from a mild chronic catarrh of the bladder and who had been treated, as he related, for "some form of Bright's disease of the kidneys," the general

dread of all who experience some chronic disorder in the uropoëtic system. The tried substances were: silicate of soda; sulphite of soda; permanganate of potassa; sulphuric, nitric and muriatic acid; acetic, citric and tartaric acid; carbolic acid; salicylic acid; and lactic acid.

As the experiments were of a decided result in one direction it is of no interest and consequence here to enter in the narration of any details combined with them.

There is among all these substances only *one* the effect of which was found to be far beyond comparison with any of the others, and this is *lactic acid*. An addition of one per cent. of lactic acid prevents a decomposition and alkaline fermentation of normal urine and the development of micrococci and gliococci for a long period; in pathological urine it arrests their growth and multiplication almost instantly. It seems to be a specific poison for these microscopic forms of life.

As the antiseptic properties of lactic acid have been known for years, it is the more surprising that it has not been tried long ago in these special cases, since all remedies hitherto recommended, according to the experience of the latest expert, Dr. Max Schüller* of Greifswald "only met the one or the other demand with the desired effect..'

It may be remarked here at once that the antiseptic action of lactic acid, by local application, is by far not the only effectual property of this drug. Its dissolving power for catarrhal and diphtheritic exudations is likewise known, and should not be undervalued; it is superior to that of any other acid. It furthermore dissolves easily the ammonium compounds, the ammonio-triple-phosphates and the calcium phosphates. And, best of all, it permits also of an internal administration in a most agreeable form, as a kind of lemonade, or in the form of buttermilk or added to it. It will be discovered in the excreted urine, after a few good doses, a fact which was established by a number of careful analyses of the urine after internal administration of the acid. This generally occurs when three or four grammes of the drug have been consumed, an effect which will be accelerated by a

*L. c. page 50.

cotemporary use of buttermilk as a beverage. The latter property of course makes the remedy the more valuable, especially in all acute cases and those of a milder course, or where the condition of the patient or other circumstances are not favorable to a local treatment. As to the administration of the drug, the acid may be given in doses of 1.0 to 1.5 even to 2.0 grammes three times a day in sugar and water. Even the large doses administered in a diluted form or in a mild bitter tonic, when continued for a longer period, do not interfere with the digestion. A hypnotic influence has not been observed. For local treatment solution of 0.5 to 1.0 per cent. will suffice, and I recommend two injections at one session for the beginning, with the cotemporary internal use of the acid; and, not to repeat the injection sooner than absolutely necessary. In the majority of cases, even of long standing, only a few injections will be required.

As to the instruments for injection into the bladder, a simple silver catheter is preferred to those with a double tube; for a syringe I recommend a fountain syringe or syphon syringe (like the common nasal douches) with a rubber tube of about three feet in length. If the catheter is provided with a stop-cock at its base part, or with a short rubber tube closed by a clamp, it can be introduced filled with the injecting fluid and the connections can be made with the fountain tube in such a manner that all air is excluded inside of the apparatus which will be found of great convenience to the patient as well as to the attending physician. The manipulations are simple. The tumbler containing the injecting fluid, the temperature of which should be raised to about 100° F., is placed on the floor, the tubes are filled with the fluid and the connections are made with the catheter in position, which must be supported by the left hand or by the patient himself. The right hand then raises the tumbler from the floor, slowly, to the desired height. The bladder fills up by this arrangement without any inconvenience to the patient, or any sudden shock, and the pressure from the column of the injecting fluid can be entirely controlled and the bladder can be expanded *ad libitum*.

During about eighteen months twenty-one cases have been under treatment, of which a record was made, for the most part

by practical physicians of my acquaintance. Among these there is only one case to be mentioned of a chronic catarrh of the bladder from a stricture in which the recovery remained doubtful because of an interruption in the treatment. In six acute cases (5 m., 1 f.) the cystitis had originated from an inflammatory condition of the urethra; in only one of these it was found necessary to have recourse to a twice repeated injection into the bladder. Five acute cases (3 m., 2 f.), developed without any known cause, recovered rapidly from an internal use of the acid. One case of a chronic catarrh from partial paralysis of the bladder required three double injections; one case of hypertrophy of the prostate four injections. From eight cases of chronic catarrh of long standing only in one the injection was repeated ten times, three recovered from the internal use only and the remaining four cases submitted to two, to three and four injections.

In conclusion it might be found of some interest that George Johnson (*Lancet* 2, 1876, page 847.) in affections of the bladder highly recommends a "milk diet."

————:o:————

ART. II.—Abstract of the Proceedings of the Buffalo Medical Association, Dec. 3d, 1878. Reported by JOSEPH FOWLER, M. D., Secretary.

The Association was called to order by the President, Dr. LOTHROP.

There was a fair attendance of members.

The minutes of the last meeting were read and adopted, Dr. P. H. STRONG, the Essayist appointed for the occasion, read the following paper, which, upon motion, was referred to the BUFFALO MEDICAL AND SURGICAL JOURNAL for publication.

Mr. President and Gentlemen of the Association:

When I promised your committee that I would furnish a paper to serve as the basis for an evening's discussion, I had in mind certain clinical observations and the deductions therefrom, which really might better come up as matters of talk than otherwise. But as I have such a poor faculty of thought and expression when upon my feet, I have concluded that it would be more satisfactory

and profitable all round, to indite and thus present them for consideration.

You do not need to be reminded that the requirements of the period of Gestation, and preeminently those of the subsequent accouchment and the puerperal condition, make very heavy drafts upon our time, and not less upon our mental resources and our skill, while engaged in active general practice. In the exceptionally healthy locality in which our lot is cast, it may not be extravagant perhaps to say that the most of our time is thus occupied—certainly it is within the mark to say, that no class of professional duties are so absorbing and anxious to mind, so taxing to patience or so wearying and exhausting to the entire vital energies, physical and mental, as is that incident to and connected with the Lying-in-Room, so called. Diseases may come and diseases may go, (in fact *do* come and go according to observance or non-observance of well known sanitary and dietary laws,) but child bearing and its perils, go on forever.

But without farther preamble let us come to the specific theme upon which I am expected to discourse to you for the evening, this viz: Certain points pertaining to Puerperal Fever and the Puerperal condition.

I have not the temerity, Gentlemen, to propose to discuss within the limits of twenty or thirty minutes so vast a subject as is generally included under the term Puerperal Fever in its entirety. A good sized library might be gathered upon this one subject. My limitations do not admit of presenting to you its histology, morbid anatomy, not much as to its Pathology or essential nature, still less concerning its treatment. But I have reached certain convictions concerning what may be termed sporadic Puerperal Fever, especially as to its causation and Prophylaxis, that being the fruit of some thirty-five years of observation and experience, of course have controlling weight with me. To you, whether you should consider them wise or otherwise, they may serve as the hinge upon which the evenings discussion may not unprofitably turn.

As you are aware, the term Puerperal Fever is used to cover and include four or five (or more) somewhat distinct affections and Pathological conditions, viz: Puerperal Metritis, (pure and simple)

Puerperal Peritonitis, pure and simple, Puerperal Metre-Peritonitis, Uterine Phlebitis, Uterine Pyemia, and perhaps others, all having points of difference, but all alike deriving their significance and gravity from the Puerperal condition. Now, what is that condition. As practical men, you do not require to be told that it derives nearly all, if not its entire importance from the condition of that portion of the uterus covered by the now detached and removed Placenta. The torn and bleeding uterine vessels are closed by coagula and the contraction of the organ, and when contracted to its minimum we anticipate and generally experience no farther morbid results. It is a physiological condition adequately provided for by simple natural forces and processes. Like the wound with its surfaces brought in opposition it may be said to heal by first intention.

But how different with the uterus inadequately contracted. The severed vessels without the contracting pressure upon them are left patulous and bleeding more or less, and being unclosed or imperfectly closed by the clot formation, besides the imminent peril from hemorrhage it requires but a few hours continuance of this state to develop the suppuration process which is inevitable by the first intention. Moreover, the enlarged vessels left undiminished or inadequately diminished, even when closed by clots are liable and ready to assume morbid conditions from the presence of coagula in a preternatural amount. The clot itself, being excessive proving by its disintegration and decomposition, a morbid element by developing Septicemia. So that we may easily have super-added to the product of the suppuration process, or possible *Pyemia*—blood contained in the ruptured and uncontracted vessels in excess of the requirements of the reparation process, and therefore left to undergo decomposition and putrefaction, and thus possible *Septicemia*. Add to this coagula unexpelled from the uterine cavity. (we all know how soon the putrefaction change sets in to blood in this situation,) and we need seek no farther for possible, if not probable causes of Puerperal Fever in some one of its forms. Indeed I have often wondered not, why and how it could occur, but how any woman with uncontracted or even poorly contracted uterus after child-birth could escape. It is now, I believe, gener-

ally conceded by our best Gynecologists that the disease is not infrequently communicated by the accoucheur after days or even weeks have elapsed since his attendance upon a case of the disease, and despite the utmost care on his part, by way of ablutions, disinfectants and change of apparel.

Now without the slightest attempt to solve the mystery of the means or mode of communication, it would seem to be demonstrated not only that the material of infection is exceptionally intangible and virulent, but that the fresh puerperal condition imparts to the uterus and tissues involved, a wonderful susceptibility to the toxical effects of this special infection.

The scope of the present paper utterly precludes the consideration of the various forms of the disease and their differentiation except to express the conviction, that Puerperal Peritonitis, pure and simple, is a myth, and that what is so called and regarded, is invariably preceded or accompanied (generally the former) by Metritis. I account for the error by the well known disparity existing between the Peritoneum and the Uterine tissues as to their respective endowment with sensitive nerves—the slightest inflammation of the former causing more or less intense suffering upon pressure, while much grosser inflammation of the uterus may be wholly painless, and so undetected.

From the foregoing consideration it would seem not an unfair deduction, that we have in the case of the inadequately contracted uterus, and from the consequent and inevitable suppurative process set up on one hand, and from the superfluous blood clots retained in the morbidly dilated uncontracting blood vessels, as also in the cavity of the uterus on the other hand, and thus possible if not unavoidable Pyemia and Septicemia absorption, I repeat, that in these conditions we have sufficient, and more than sufficient cause to account for the Pathological phenomena existing in Puerperal Fever, and every phase and form of it. And the point I would make in this connection is, that every case of sporadic Puerperal Fever is traceable primarily to inadequately contracted uterus, and the resulting purulent or septic absorption, one or both. It is utterly immaterial to my mind, whether it assumes the form of Metritis, Metro-Peritonitis, Uterine Phlebitis, Uterine Pyemia or

what not, they are all alike traceable to this source. I fully believe that all the symptomatic as also all the post-mortem phenomena are explicable upon this view of the causation of this formidable disease.

Now, if this position is correct, and I believe it incontrovertible, the corollary in its practical suggestions is most obvious, this, viz: that to secure after delivery, the contraction of the uterus to its minimum is of vast, and often, of vital importance. Can I be mistaken in the belief that precisely this point in practice, is too often overlooked?

It is said to be a good rule, though not always fair, perhaps, "to judge others by oneself," but it is certainly more likely to be so when it involves self-delinquency and confession. Confession is not only good for the soul, according to adage, but it may also be profitable to others by mirroring and recalling facts and events in their own experience. The present essayist then would frankly confess, that he had been in practice a score of years or more, ere he adequately apprehended the full significance, the vast importance of securing uterine contraction, post partum, to its almost minimum before he left the room of accouchment.

The authorities were sufficiently explicit as to details of duty up to the moment of delivery, whether natural or artificial—then as to removal of the placenta, and if undue hemorrhage occurred as to arresting it by various means, among which uterine contraction was of importance. No external hemorrhage occurring, and the patient being every way comfortable, it was generally thought and taught that the requirements of the case were met, and the patient could be safely consigned to the attendant nurse. If there was reason to fear hemorrhage, it was enjoined to remain with patient until the danger seemed to be past. If flooding was present or apprehended, the size of the uterus should attract attention and effort at its reduction,—otherwise it was of small account. Meddlesome midwifery we were told, was bad and must not be indulged in.

Such, briefly, were the inculcations of the authorities in the days of my pupilage, and such, I believe it largely remains to this day. Such certainly was my own mode of procedure for the first

twenty years, or more of my practice. And it is due to truth and fairness to add, that such procedure in by far the most of cases, meets the requirements, and we have high authority for saying that, "All's well that ends well."

During the period specified, I can enumerate but very few cases of sporadic Puerperal Fever, probably not two per centum of cases of confinement. Cases which amounted, in one way or another, to slow and poor recoveries, and which I have known, were due to poorly contracted uterus, as well as my Puerperal Fever cases, were more numerous. Still I suppose that my experience during that period was about that of the average of practitioners. But be this as it may, I have reached the decided conviction, that, with the exception of drawbacks from sore nipples and mammary abscess nearly all, if not all the untoward recoveries from child-birth are traceable more or less directly, (generally more) to imperfect contraction, and as pertains to sporadic Puerperal Fever, (the special objective point at which this paper is aiming,) I soberly believe, that it is uniformly thus traceable.

The question naturally arises, can anything be done to obviate or avert this affection with other allied puerperal conditions only less grave and dangerous? It is my conviction, that much, if not everything can be thus done. And with a brief exposition of the means and methods to this end, I will relieve your patience and submit the matter for your consideration.

Ordinarily of course, unaided nature is equal to the requirements. In the considerable proportion of cases that are exceptions to the rule, what can be done. In the case of undue hemorrhage, post partum, we meet the exigency by prompt efforts and well known methods to secure uterine contraction—among which are external pressure, and firmly grasping and squeezing the faultily contracted organ. This failing, according to the urgency of the case, we introduce the hand, remove the clots if present, make pressure upon the internal surface of the uterus and more especially upon the placental site and bleeding vessels. This failing the hand may be chilled in cold water and reintroduced wet, and the pressure maintained if necessary, the uterine walls pressed firmly between the two hands, the one external and the other on its internal

surface. By one or the other means the organ contracts and the hemorrhage is arrested. In cases of undue hemorrhage we feel the necessity of protracting our stay and keeping the patient under close surveillance until all danger of flooding has ceased. It may be advisable also to superadd to our manual means the free use of ergot, with other potencies which I will not stop to indicate. But in a certain proportion of cases there is no excessive external hemorrhage, and yet the organ remains of undue size and noncontractile. It often occurs in this case, that while there is no external flooding, the blood-flow continues too profuse, but is so gradual as not to escape externally, but forms coagula which quite distend the flaccid uterus. Indeed it is not very uncommon with me, as I suppose is the case with you, Gentlemen, to have the organ within a half hour after delivery and after having attained great reduction in size to become again considerably distended by accumulating coagula, and all this with slight external hemorrhage, and often with no alarming symptoms by way of exhaustion of my patient.

Now what is good practice in such a case. We find on pressing the hand upon it that the organ either remains undesirably large, or seems to expand after having contracted, either from coagula or otherwise, and yet no alarming external flooding, and no untoward symptoms other than this excessive size. I believe that the ordinary rule in practice is, after brief efforts, to cease further attention to the organ, and after remaining twenty or thirty minutes or more, and no flooding externally occurring, and upon giving strict injunctions to the nurse for contingencies, to trust the case to the recuperative forces of nature. The patient, more or less exhausted from more or less protracted suffering, desires to be let alone, or to have no painful methods, extra or intra-uterine resorted to. There seems to be no indication, certainly no urgent indication for further interference.

We call to mind, it may be, other similar cases, where everything resulted favorably, and it must be confessed that the majority of such cases do thus result. The distended uterus, whether from coagula or not, is generally equal to the exigency, and more or less gradually contracts, and if clots are present they are for most part,

sooner or later expelled, and the uterus assumes its wonted place and nearly its minimum size. The patient may have a somewhat protracted getting up, but generally recovers with nothing, at least nothing so serious as Puerperal Fever; and again, All's well, that ends well," apparently.

I have to confess, that, however it may be with others, this, for many of the earlier years of my practice, was my mode of procedure in the Lying-in-Room. A very small per centage of cases of Puerperal Fever, and a somewhat larger proportion of annoying tedious recoveries from one drawback or another was the result. A careful study of my untoward cases, at length convinced me that this mode of practice could be improved upon, and in accordance with this view, for the past ten or fifteen years, I have regarded my duty to my patient not discharged without making urgent and persistent efforts to reduce the dimensions of the uterus to its utmost minimum before leaving the accouchment chamber.

Whether the unduly disturbed organ remains flaccid or of a ball-like hardness, even in the absence of excessive flooding, I do not now remit efforts at its reduction by firm sustained pressure, and, that failing, I am in the habit of grasping the organ with both hands, one on either side, and squeezing it with such force that the clots which may retard its contraction are pressed out of it. But, all this failing to effect its reaction, one hand is introduced into the uterus to scoop out the coagula and press upon its internal surface, while the other maintains the pressure or grasping external. This is done at any time within half an hour or more after removal of placenta. Once done is usually sufficient and insures contraction, but failing of that, and the coagula reforming, they are again to be dislodged by the same procedure. By determined persistence in this course, I do not recall the case of late years in which I have failed of the desirable contraction.

These practical suggestions are made, with no thought or design of instructing you, who may be said to belong to the veteran corps. They are thrown out as hints to guide my medical brethren who are as yet wholly or largely inexperienced in this special field of practice. To such I would add the caution not to give up or suspend

these urgent efforts at reduction at the request or even entreaty of the patient to be let alone or her more or less loud outcries at the trifling pain incidental to the extra or intra manipulations. It must be confessed that it often requires not a little nerve in the absence of apparent indication or necessity for it in the mind of the patient, and following so closely, it may be distressing and exhausting labor to persist in the use of the means necessary for securing adequate contraction; but none the less important, as it strikes me, of effecting just that. I have found it usually sufficient to represent it as conducive to their future well-being by forestalling possible drawback to a speedy and solid recovery.

In conclusion, allow me to add that it comports neither with a considerate regard to your powers of endurance, nor with the design and scope of this paper to illustrate the points made in it by representing individual cases, which might be done indefinitely. It will suffice for my present purpose to give the net result by stating that, if I except the case of a lady pregnant and confined for the first time when over 40 years of age and delivered by forceps with extreme difficulty, I have had, after 10 years of practice upon the views and principles and by the methods I have here endeavored to describe and advocate, nothing worthy of dignifying by the term puerperal fever in any of its forms—nor any other puerperal accident that in the least imperilled life or caused any considerable anxiety. And if I except occasional sore nipples and mammary abscess, I have had scarcely a case that could fairly be said to be anything but a rapid and solid recovery from childbirth. I can attribute it to nothing so much, if at all, as to my carrying into effect the rule I have adopted, not to leave accouchment room without having made urgent and persistent efforts at reducing the post-partum uterus to its minimum whenever unassisted nature is unequal to the task. I speak to wise men—judge ye!

DR. WHITE. The paper not only brought up one subject, but a number. Dr. Strong's remarks appear to have been confined to the sporadic form of puerperal fever. I think it wise to discriminate between the tissues affected, and as important to do so early as in pulmonary disease.

I do not think the uncontracted uterus the sole cause of the affection, but have always appreciated the necessity of securing firm contraction of the organ before leaving the lying-in-chamber.

The books all contain this advice, and I have taught it for more than thirty years, and never omit to charge my students to remain at least an hour after the delivery of the child. Labor is a psychological condition and not a pathological one. The mother is aware of this, and knows perfectly well that under ordinary circumstances she must unaided by the physician give birth to her child.

She knows also that hemorrhage is liable to take place, and that there are other sources of danger. These are the reasons which cause her to send for a physician, and he utterly fails to fulfill his contract with her should he retire before all danger is past.

I think it wicked to leave the bed-side before the uterus is firmly contracted. I rarely consider it necessary to introduce the hand into the uterus to remove clots. I am not prepared to endorse Dr. Strong's views as to the cause of the sporadic form of puerperal fever.

The great danger to be apprehended from an uncontracted uterus is hemorrhage.

No poison is more easily transmitted than that of puerperal fever. It is communicated from one patient to another through the attending physician, the wet or monthly nurse, and the visitations of officious friends.

I believe with Brundell. I would rather a friend be confined in a stable, unattended, than in the fairest apartments surrounded by every comfort and exposed to the poison of the disease.

Puerperal fever of the most dangerous type may be contracted from inflammatory erysipelas or surgical fever. These two diseases begin together, progress together, and disappear at the same time. They are conveyable diseases. Those engaged in making a post-mortem examination or dissecting should not attend a case of labor on the same day. The poison is liable to be absorbed from the uterine surface and produce puerperal fever.

I have purposely avoided discussing the subject of post-partum hemorrhage. It is a very important one, and I trust the association will take it up at some future meeting.

DR. MINER. I do not think the cause of puerperal fever has been quite satisfactorily explained. It is in epidemic form a most fearful disease and alarmingly fatal; disinfecting agents have apparently no controlling influence over the spread of the disease when caused by contagion.

Kneading of the uterus after delivery to secure firm contraction of the organ may possibly be efficacious; but should there follow inflammation of any of the tissues the question might arise, was not this the cause of the disease; am disposed to doubt the value of the kneading process in producing contraction of the womb. Blood coagula should be removed from the neck of the womb when attended with hemorrhage, and introduction of the hand into the womb in cases of sudden and violent flooding often seems to promote uterine contraction. Have often seen hemorrhage arrested by removing clots from the uterine neck. This I have found sufficient in nearly all cases.

I am not in the habit of remaining an hour with my patient after delivery, neither do I regard it necessary only in exceptional cases, and have never yet had occasion to regret an earlier absence.

I never could convince myself that we gained anything by binding the uterus down, as is usually done. I regard ergot as a valuable agent to produce uterine contraction, where the womb will not contract of its own accord, but I prescribe it as little as possible.

Dr. Strong said he meant it to be understood that the introduction of the hand in the uterus was rarely demanded and then only as a last resort.

He brought up the subject of causation to show the extreme unsusceptibility of the tissue to the action of the morbid influence, and urged the importance of securing firm, permanent contraction immediately after delivery; one of its objects being to abbreviate the stage of suppuration.

Was glad to hear Dr. Miner say he believed practitioners were in the habit of leaving the lying-in chamber in twenty minutes to half an hour, but was astonished that a veteran physician should be distrustful of external manipulation and tight bandaging.

DR. JOHNSON. I arise to thank Dr. Strong for his comprehensive and valuable paper. So much has already been said that it is

hardly proper for me to occupy the time of the association. I have but very seldom met with cases where it was necessary or proper to introduce the hand to produce uterine contraction, and think we should be slow to adopt the procedure recommended in the paper. I fully agree with Dr. Strong in the propriety of making firm external pressure and manipulations. I have more confidence in ergot than some members of the profession seem to have and believe that if it is properly given just before or immediately after the expulsion of the child sufficient contraction will almost invariably follow.

I know that Prof. White has for a long time taught that the accoucheur should not leave the patient in less than an hour after the completion of labor, but I have not always followed his teachings to the letter.

I frequently remain less than that time, and am governed by the patient's condition in each individual case. I do not believe it necessary for every woman to remain in bed nine days after confinement. It is just as safe for some women to leave the bed on the seventh or eight or tenth day as others on the twelfth or thirteenth. Do not believe in minutes or days, but am governed by the circumstances of each particular case.

DR. BARTLETT. The subject seems to have new interest because of its partial neglect.

Am glad to hear Dr. Strong attach so much importance to the practice of external pressure and manipulation after the expulsion of the child. I would go still further than this and rely on pressure and external manipulation to secure the delivery of the placenta. For ten years I have entirely relied on this plan and found it invariably successful.

Forced contractions on the cord or the introduction of the hand in the uterus was rude, uncalled for and liable to be attended with danger. It might induce *transmitted* hemorrhage and leave the surface more susceptible to the absorption of the decomposed matter.

In a paper read before this association some time ago I urged the importance of removing the pillow from beneath the head near the close of labor, to get an increased supply of blood to the brain, recuperating nervous force.

I believe it quite essential to remain with my patient fully an hour after delivery of the child, if for no other reason than that of the safety of the child, and always assure myself that uterine contraction is good and the umbilical ligatrix secure.

The Doctor here alluded to his successful use of the sponge moistened with a weak solution of Ferri. Per. Sulph., with cord attached, and pressed to the fundus of the womb, in a remarkable case of post-partum hemorrhage.

DR. WETMORE. It has been my practice to give ergot just before the child is born. I do not think ergot has any effect on an empty uterus. Can secure contraction by firmly grasping the uterus and making external manipulations. In some cases hardly anything will stop hemorrhage. Have found electricity to succeed where other means failed. I rarely introduce my hand into the womb. Clots will sometimes form where constant pressure is being made. In a severe case of hemorrhage I once secured permanent contraction by introducing a piece of ice about the size of a hen's egg in the uterus. It is my opinion puerperal disease is more prevalent in the country than in the city.

It was my misfortune to lose two cases at a time when I was engaged in dessecting and have since thought I communicated the disease to them.

Of remedial agents I place my main reliance on opium, whiskey, quinine and the application of manipulation to the abdomen.

Scarlatina and diphtheria were reported as prevailing in the city.

On motion Dr. Strong's paper was referred to the editor of the Buffalo Medical and Surgical Journal for publication.

—————:O:—————

ART. III.—Medical Society of the County of Albany. Semi-Monthly Meeting Nov. 20th, 1878. Reported by T. K. PERRY, M. D., Secretary.

The Society met at the usual hour and place at the City Hall, in Albany.

The President, Dr. F. C. CURTIS called the meeting to order, and the minutes of the previous meeting having been read by the Secretary, and duly approved, the report of the committee on the

propositions and suggestions contained in the Presidents "Inaugural Address" was then submitted to the Society by their chairman, Dr. A. Van Der Veer.

The report is substantially as follows: In relation to the committee on Hygiene, that the present committee if still in existence together with such additions as may be necessary, be instructed to carry out as far as possible the suggestions of the president. Also that the committee shall be composed of not less than five or more than seven members. The committee on Pathology, or Clinic Pathology, with sub-committee on Microscopy, would prove one of the most useful bodies ever called into existence by this society. Its members should however consist of earnest, active men, who are willing to work, and would prepare the material given to them for its presentation to the society. A committee of nine members would perhaps suffice, and sub-committee might be formed for the care of special subjects or departments. In relation to "Nominating Committee;" that the number shall consist of nine instead of five, and that seven shall constitute a quorum.

It reads as follows:

Resolved, That at the semi-annual meeting, a committee be elected for the purpose of nominating a list of the officers to be voted for at the ensuing annual meeting, which shall be known as the regular ticket, and that the vote for this committee be by ballot, each member voting for but one person, and the gentlemen receiving the nine highest votes shall be the committee.

Further, That the committee shall give notice to each member of the society, through the Secretary, of the ticket upon which they shall agree, two weeks before the annual meeting.

Resolved, That the annual dues be reduced from \$2.00 to \$1.00, and that the delegates to State Society, from this society shall be requested to pay the annual dues of \$20, due the State Society.

Your committee would respectfully suggest that the attention of the board of Censors be directed to the law now in force respecting the preliminary examination of medical students previous to entering the offices of practitioners.

In regard to registration; that we follow the suggestions of the State Society, therefore be it

Resolved, That a committee of three, to be known as the *Committee on registration* be appointed, one of whom shall be the Secretary, whose duty it shall be to perform the duties specified by the State Society, and also to have in charge the register and chronological list of the society for the purpose of making such corrections and additions to it as may be necessary from time to time under the various heads, and further to publish the annual register of the society, the same to be done by these without expense to the society.

A. VAN DER VEER,	} Committee.
HENRY MARCH,	
WM. HAILES, Jr.,	

A general discussion ensued relative to the propriety of adopting the report in toto, but the opinions were so divided that the president ruled, that as the resolution offered regarding a reduction of the annual dues contemplated an amendment of the By-Law, it would be regarded simply as a notice of amendment, and would lie over till the annual meeting.

The remainder of the report was accepted and adopted.

Dr. S. H. Sabine then presented a specimen of what was believed to be true rupture of the uterus, the breach of continuity extending across the entire fundus. The organ was about the size of one at the third month of pregnancy, and appeared in most respects healthy. The tissue at the point of separation while showing very little evidence of inflammatory action, or deposit of a malignant character, was nevertheless very much thinned and edges ragged.

The history of the case of which I give a synopsis, was as follows:

Mrs. S——, æt. 46, mother of eight children, the youngest nearly four years old, presented herself at the Dr's office, August 26th, 1878, and requested treatment for an excessively irritable stomach accompanied with nausea and vomiting. She could not believe she was pregnant, yet had not menstruated for three months. Had always been quite regular, and had never knowingly suffered from any uterine complaint.

Believing the case to be one of gastric irritation solely, she was

treated accordingly, but failing to obtain the desired relief she sought advice elsewhere, and the Doctor saw no more of her until October 4th, of same year, at which time he was called to see her at her home, she being confined to her bed and flowing freely. The usual treatment was resorted to with the effect of very materially lessening the discharge.

The clots which came away were examined closely, but nothing in any way resembling a fœtus was to be found.

October 5th. Flowing quite freely again and much prostrated. Tampan applied and ergot and brandy internally—catheter employed to empty bladder—flowing checked.

Oct. 6th Was called about 5 A. A., to see patient who was in great pain across the lower part of abdomen. Morphia hypodermically, and tampon removed. 11 A. M.—patient sinkingly rapidly—stimulants were given freely but she did not rally, and at 3 P. M. expired.

Post Mortem twenty-five hours after death—body well nourished, skin very pale, cuticle gives way on slightest pressure, abdomen distended with gas, uterus about the size of one at three months of pregnancy—empty and ruptured across entire fundus, the opening communicating with the general peritoneal cavity, remaining organs healthy—no blood in abdominal cavity, very little pus and no evidence of peritonitis.

Dr. Burton of Troy, who had seen and treated this patient subsequent to her first visit at Dr. Sabine's, states that while she was under his care, his treatment being for gastric derangement merely, he was called in haste one day to see her, and to his surprise found her in great pain across the abdomen and flowing freely. An examination revealed, projecting from the vulva, a polypus about the size of a fig, and evidently having its attachment within the uterus. It came away during the examination. The hemorrhage was subdued, uterus contracted nicely, and she made an apparent good recovery. During the interval between the expulsion of this body and her death, she had been gaining in health and strength, and on the evening preceeding her death had been in unusual good spirits.

In conclusion, Dr. Sabine expressed his inability to account sat-

isfactorily for all the conditions which the case presented. Did not believe it had been one of the varieties of pregnancy, although Prof. T. Gaillard Thomas, of New York, who had been written to concerning the affair, believed at first it had been one of Extra Uterine Pregnancy, the fœtal body escaping into the abdomen and missing observation at the post mortem. The substance removed by Dr. Burton he thought was probably a portion of the Membrane Decidur.

In a subsequent letter however, he admitted too much haste in diagnosis, and thought after all, it might not have been any form of pregnancy.

On the completion of the paper, Dr. Curtis very briefly summed up the more important points and requested a thorough discussion as the case was both unique and interesting.

DISCUSSION.

Doctors Beckett, Blatner, Cook and Hailes participated in the discussion, they all believed that a body of some nature had evidently been expelled from the womb, as in no other way did they believe the hemorrhage and contractile pains could be accounted for. As to the exact nature of this body there was a division of opinion, some believing it to have been of fœtal origin, the remainder thought more probably, polypoid. An important question which several members addressed to Dr. Sabine was: What was the quantity, and in what way did he explain the presence of the pus which he stated was found in the abdomen after death? As to the quantity the reply was, a very little, less than a teaspoonful probably—concerning the cause he plead entire ignorance, as well also inability to even conjecture.

The President at this time ordered a recess for refreshments. After reassembling, Dr. J. H. Blatner presented a specimen which he believed to be a true *diphtheritic cast of the trachea*, and the following is the history of the case:

Patient, a girl æt. eight years. When first seen had been complaining for several days. Deposit on fauces well marked and constitutional symptoms somewhat alarming.

Diagnosed diphtheria and treated both locally and constitutionally.

The disease however had obtained so firm a hold that notwithstanding recourse was had to any measure by which relief might be obtained, it steadily increased in severity, ultimately proving fatal. The period between apparent inception and death in this case was nine days.

The post mortem revealed besides the specimen exhibited a deposit of a somewhat similar nature extending down the bronchii even (the Dr. believed) to those of the smaller order.

DISCUSSION.

Dr. Curtis in referring to the case, laid especial stress upon the well recognised tendency of the diphtheritic process upward rather than downward, the latter being more especially peculiar to croupous exudations. The Dr. he thought, had not made sufficient mention of this in his recital. Believed the presence of albumen in the urine a diagnostic point to distinguish between diphtheria and croup. Inquired of Dr. J. P. Boyd, Jr., whether in his experience this were not the fact—Dr. Boyd thought not in all cases.

Dr. Boyd Jr. remembered a case in which Dr. E. S. Hun wished him to see a child four years of age which he was attending at the St. Vincents Asylum. It was supposed the child had swallowed some foreign body, as in no other way could the nurse account for its labored breathing. Believed at the time it was a case of diphtheria.

The child died, and on examination there was found, extending from the glottis to bifurcation of bronchii a deposit in every way resembling that of diphtheria.

The peculiar feature in this case was the entire absence of deposit above the glottis.

Dr. Thomas Beckett said he had every reason to believe that an epidemic of true diphtheria was prevalent in the western part of the city, as he had been called to see a number of patients living within an area of half a square mile or more, all of whom seemed to be somewhat similarly affected. In each case the deposit on fauces was well shown and constitutional symptoms

evident. His treatment was both local and constitutional—Sal. Acid Salicylic to throat. Terrum, Quinia and Potassa Chloras internally.

His per centage of losses was very small. Believes the throat affection merely a local manifestation of a constitutional disorder.

Dr. A. T. Van Vranken related a case of diphtheria complicated with Subleola. The entire eruption which was quite profuse, disappeared in twenty-four hours time, and the prostration, which was before very great, seemed now to be increased, and after a few hours the trachea filled and patient expired.

Doctors Boyd, Blatner, Cook and Perry, engaged in a discussion relative to the peculiarity of the diphtheritic exudate and the appearance of the underlying surfaces following its removal.

Dr. Cook, quoting from Ziemssen, said he believed the germ theory to be the accepted one, and in regard to the membrane, thought Oertel distinctly stated that its separation occasioned neither a ragged, bloody or ulcerated surface underneath.

The others thought its removal, (unless by absorption) meant a loss of substance and a consequently more or less ulcerated surface remaining.

Following this discussion Dr. A. Van Der Veer presented for the inspection of the society, a specimen of more than ordinary interest. It was that of a testicle very much enlarged and bearing evidences of a malignant deposit. He had removed it from a young man of twenty-five, who was in all other respects healthy and sound.

The patient stated that while frolicking he had received an injury at this point, and the pain and swelling had increased rapidly. There was an interval of thirteen weeks between the accident and operation. The Dr. believed it to be Encephaloid, but pending microscopical examination withheld a positive diagnosis.

There being no further business before the Society it was declared adjourned.

Miscellaneous.

The Therapeutic Value of Iodoform.

For many years the application of iodoform or teriodide of formyl has procured in the hands of Dr. J. Moleschott, of Turin (*Giornale della Reale Accademia di Torino*), effects so beneficial, that only the desire of studying physiologically the action of this valuable substance has been capable of restraining him from publishing his clinical experience.

It was in 1870, he says, that I was first induced to try iodoform in the case of a scrofulous man, aged about 30. In 1867 I had him several times under treatment for cold abscesses in the right groin and in the back part of the hip of the same side. In September of that year he suffered from swelling of the cervical glands on both sides, those on the left forming a uniform mass larger than a large fist. I treated the patient assiduously from September, 1870, to November, 1870. Externally, I applied iodide and bromide of potassium, iodated iodide, iodide and biniodide of mercury, chloride of ammonium, belladonna, cicuta and digitalis; internally, I gave iodide and bromide of potassium, iodized cod-liver oil, mineral waters rich in iodide (Sales water), without neglecting sea-baths. The success was very imperfect. It did not carry out the popular belief, often shared by medical men, that such tumours ought always to yield readily to the application of a simple iodine ointment. The case here referred to was one of the many obstinate ones. The advantages gained after a course of treatment diligently carried out for over three years, still left much to be desired. The young man was desirous of being married; but his friends always ridiculed the proposal on account of the deformity caused by the tumour. Stimulated by the desire to free him from this, I searched through journals and books, and met with praises of iodoform; but I regret that I do not remember which author first led me to entertain hope. I prescribed one part of iodoform and fifteen of elastic collodion, to be applied by a brush night and morning. This treatment was commenced November 20, 1870; and on December 18th the tumour was reduced to one-half its size; on February 2, 1871, it had almost disappeared; and when I saw him on April 5th no trace of it could be seen. The patient was then suffering from vesical catarrh, gingivitis, and a little palpitation; and in the next September he had perityphlitis. In March, 1871, when the tumour had nearly disappeared, the urine contained albumen for a short time. When he last came to consult me, in October, 1877, there had been no return of the glandular swellings, or of the cold abscesses. This case did not remain

singular in the circle of my practice. Two little daughters of a schoolmaster, aged respectively 8 and 10 years, had for a year or more glandular swellings in the neck, of the size of a hen's egg. Ointment of iodide of potassium failed. With iodoform, applied in the manner above described, they were cured in a few weeks.

Of many similar cases, in all of which iodoform subdued that which had obstinately resisted iodide of potassium, I relate one which appears remarkable, since the cartilaginous hardness of the tumour had led me to doubt the efficacy of the remedy in which I already placed much trust. A chambermaid had on the right side of her neck a tumour as large as a middle-sized hen's egg, and as hard as cartilage. She had been disfigured by it for many years; and, although it was not painful, she desired its removal. I applied iodoform in the form of ointment (1 in 15). At the end of three months a very favorable effect was produced; she assiduously followed up the treatment, and within a year the swelling had disappeared.

The last case of this kind which I saw was in a man who had in his right inguinal region a large mass of swollen glands. The tumour, which had commenced with pain, had been treated by a medical man with poultices and incisions. But, in spite of the continued suppuration, the groin remained swollen to such an extent as almost to disable the patient from the discharge of his duties. When this condition had lasted three months he asked my advice. In four weeks, iodoform ointment effected a complete cure.

This favorable experience of the efficacy of iodoform in combating swellings of the lymphatic glands, was crowned by the improvement obtained in a case of splenic leuchæmia. The subject was a lady whose spleen was doubled in size, and could be easily felt by the hand. Her blood contained one white corpuscle to fifty red, in place of the usual proportion of one to 357. The principal symptoms were prostration, pallor, obstinate diarrhœa, especially severe at the menstrual periods, and a great tendency to acute painful œdema. There was no hemorrhage of the lymphatic glands. On the other hand, the patient had two attacks of severe pain in the sacrum and last lumbar vertebrae, probably dependent on the participation of the marrow of the bones in the disease. The case might then be considered as one of splenic and myelogenous leuchæmia, but remarkable for its severity and long duration. When she first came under my care in January, 1870, she had for several months remained in bed. She did not tolerate quinine, nor iron, nor any other metallic remedy. On the other hand, she obtained advantage from aromatic baths of 26 to 27 Reaumur (90.5 to 92.75 Fahr.), continued for not more than three minutes, and from painting over the region of the spleen with iodoformized collodion; this treatment was commenced in 1871. The diarrhœa required appropriate treatment

from time to time. Fortunately, the patient's appetite never failed; she could digest venison and other nutritious food. The swelling of the spleen returned several times, but was always restrained by the external application of iodoform. The proportion between the two kinds of blood corpuscles had for some time been normal.

I do not by any means assert that the remedy for leucæmia has been found in iodoform. The cure is not sufficiently complete, nor the case severe enough; and I have not had an opportunity of trying the same treatment in other cases; but the result of this first attempt seems to encourage further trial.

From the time when I verified the solvent effect of iodoform, I applied it repeatedly in the treatment of swollen and indurated inguinal glands of syphilis. In these cases I gave protoiodide of mercury according to Simon's excellent method, or iodoform in pills, in doses varying from 5 to 10 centigrammes ($\frac{3}{4}$ to $1\frac{1}{2}$ grains) in the day; its effect were so salutary, that I can warmly recommend iodoform in the treatment of syphilis.

Judging from the related facts, iodoform, before promoting absorption, should determine the destruction of the primitive elements. This may be said to be its *modus operandi* in orchitis, in which I have several times obtained resolution in a period varying from five to eight days, by the application of iodoformized collodion.

In cases of effusion into serous cavities, iodoform has surpassed my expectation. By painting with the iodoform dissolved in elastic collodion, I have seen fluid dispersed which had collected in the pleura, pericardium, and peritoneum, and beneath the arachnoid.

In the case of a lady, wife of a well-known officer, who suffered from insufficiency of the tricuspid valve, I twice obtained absorption of a dangerous pericardial effusion.

At Nervi, some years ago, a gentleman, aged 45, the subject of pulmonary tuberculosis, had ascites to such an extent that he could only remain in a semi-recumbent position on his back, and could not bend his body. I thought that paracentesis would be required, in spite of the anæmic state of the body. I determined, however, to try iodoformized collodion, giving at the same time diuretic pills. The collection of fluid disappeared in about fifteen days, with an abundant discharge of urine; and it did not return during the remaining year and a half of the patient's life. From that time, I have made it a rule not to advise paracentesis, without having first tried the external application of iodoform. I confess that it was not always efficacious. We cannot be surprised at this, since in many cases we cannot eliminate the cause of exudation of the fluid, we cannot prevent it from again collecting, and the obstacle to the circulation may be so great that no treatment succeeds in stimulating absorption.

Of all the satisfactory results which I have obtained from the

application of iodoform, the greatest has been in the acute hydrocephalus of children. In recent years, I have reported three complete cures among five cases of this fatal disease, two of which appeared to be in a truly desperate condition. The fixed look, the lost senses, the sopor, the convulsions, the sunken abdomen, the vomiting, the infrequent pulse, the dilated and unequal pupils, the tonic contraction of the cervical muscles, completed a picture which could be easily recognized. I ordered iodoform, dissolved in collodion, or in the form of ointment, to be applied three or four times daily to the cervical region, and over the mastoid processes, the forehead and the temples. I must not omit to state that the children at the same time had small doses of calomel, and purgative clysters.

I will here mention a case of prepatellar cystic hygroma. The subject was a valet in a large, who, having to keep polished the furniture in the rooms, was obliged often to kneel on his right knee. With paintings of iodoformized collodion, the swelling of the bursa in front of the patella was reduced in fifteen days, although it had already existed as many months.

In chronic arthritis, also, I have had much reason to praise iodoform. Two cases are particularly memorable. One was that of a little girl nine years old, daughter of a teacher of swimming, who, in April, 1875, when I undertook to treat her, had been suffering for nine months with inflammation of the left knee. The suppuration was very diffuse, and the child suffered severe pain and was very much weakened. The use of iodoform dissolved in collodion, of iodide of iron in the form of Blaneard's pills, and absolute rest, so far restored her that in May, 1876, only a slight stiffness of the joint remained.

The other case was one of fungous inflammation of the articulation of the left foot in a boy aged 15. He had been confined to bed many months, and his parents had no further hope. Two very skillful surgeons had declared that there was no resource but amputation; but, his parents not consenting, the patient was removed from the hospital. The left tarsus was twice as large as right, and was surrounded by eight or nine suppurating and fungating sores; in more than one spot, the suppuration reached the bone. There was no pain. I had iodoformized collodion applied twice daily to all parts of the foot where the skin remained sound, and the ulcers were first treated with chamomile baths; and afterwards with solutions of nitrate of silver (2 to 10 per cent.); iodide of iron was given internally. At the end of a year, the boy could walk, the sores were all healed, the tarsus was scarcely swollen, and all movements were possible, though less free than in the other foot. He had no return of the disease, although he committed several imprudent acts. At present he is able to work; and his parents who had resigned themselves to seeing him perish, rejoice in the possession of a robust lad.

From all that has been said above, iodoform appears to be a remedy which has a powerful resolvent action, and causes the absorption of formative elements and of collections of exuded fluid. But to these effects it unites the valuable property of assuaging pain. This may be proved in attacks of gout. I have often succeeded in removing or in considerably relieving the most severe pain and other inflammatory symptoms of gout, within twenty-four hours, by painting the parts with iodoformized collodion.

Less certain is the success of iodoform in chronic rheumatism affecting several joints, and I have found it quite unreliable as a remedy against the pain of acute articular rheumatism.

As a sedative remedy, I have used iodoform in a large number of cases of neuralgia, mostly intercostal, cardiac, sciatic, and articular. I have most frequently applied it dissolved in collodion, but have also used it in the form of ointment.

In one case, intercostal neuralgia was accompanied with syphilitic myocarditis, without disease of the valves. The patient, a merchant at Alba, was affected on the slightest movement, even a short walk, with giddiness and spasmodic pain in the region of the heart. He was cured by the internal and external use of iodoform; but he had to continue the treatment with short interruptions for several months. He took internally from 5 to 10 centigrammes in twenty-four hours, in the form of pill.

Patients very often present themselves, complaining of intercostal pain in the heart, radiating towards the left clavicle. Such persons not unfrequently feel palpitation, and fear that they have disease of the heart, although they are quite free from it. These patients are comforted if an opportune treatment free them from their pains; and the external application of iodoform fulfils this object admirably. Along with the pains, the unfounded dread of cardiac disease disappears.

Although desirous to avoid making a complete enumeration of the services which iodoform has rendered me, I must make brief mention of a case in which I cured a true neuritis following typhoid fever in a young man, and affecting the trunk of the left sciatic nerve. When the patient sought my help, in the autumn of 1870, his sufferings had lasted several days. The slightest pressure on the nerve caused intolerable pain; and the patient, who in other respects might be called convalescent, was obliged to remain motionless in bed. The pain was very soon relieved by iodoform; but the leg remained so weak, that for several weeks the patient walked on crutches: and he did not recover perfectly until a prolonged stay at Nervi.

A remedy which combines in itself antiphlogistic, resolvent, and sedative properties; which embraces a field of action extending from neuritis to neuralgia, from leucæmia to tuberculous meningitis, from lymphoma to collections in serous bursæ, from attacks of gout to hygroma; a remedy which in the multiplicity and en-

ergy of its attacks competes with quinine and with cold water, might be regarded as miraculous, if it had not its defects like every other good thing. Fortunately, however, these defects will not be very detrimental to the service which it is capable of rendering to suffering humanity.

The most important defect in iodoform is its perceptible odour, which is much more preceptible when used with collodion than when applied in the form of ointment. Its internal use is sometimes followed by disagreeable eructations. It cannot be said that the odour is repulsive; it is rather oppressive. In the collodion solution, it reminds me of a photographer's laboratory. In order to overcome the objections arising from this odour, the following rules should be followed.

The box of iodoform ointment, or the bottle of iodoformized collodion, should be kept at a distance from the window, in a well-closed tin case; this retards the decomposition of the iodoform, which goes on rapidly in the light. The surface to which it is applied should be covered by a thin layer of gutta percha. Finally, unless its action be urgently required, the application should be made only in the evening; preference being given to the ointment, which in the morning can be easily washed off with a little soap and water, so as to leave no smell.

Another defect of iodoform is, that it sometimes causes palpitation. I have as yet not often observed this; but it repeatedly occurred in a hysterical lady for whom I prescribed iodoform internally as a remedy for hemicrania. This defect, causes me to recognize a conspicuous advantage, which I desire to see confirmed by later experience.

Some months ago, I had under my care a lady, wife of a professor of literature, suffering from mitral insufficiency without compensating hypertrophy of the left ventricle. Irregularity of the heart-beat was the most troublesome symptom of the exhaustion of the cardiac muscle in its attempts to overcome the obstacle. She had *malaise*, diminution of the urine, nervous attacks, oppression, and dyspnœa. The radial pulse was often scarcely perceptible. Very small doses of digitalis (30 or 40 centigrammes in infusion. in twenty-four hours) several times produced a sensible improvement; but the stomach did not bear it well, and it therefore became necessary to suspend the use of the remedy before a satisfactory advantage had been obtained. Remembering the experience referred to above, I had recourse to iodoform, which I prescribed in doses of 6 or 7 centigrammes (about 0.9 to 1 grain daily) in form of pills. The patient had scarcely taken it two days, when I found the heart's action regular and the radial pulse well developed. The heart, which seemed to have given up all rhythm, had regained a regular beat. The same success was repeated several times in this patient, at intervals of various length.

This and similar observation justify me in asking whether iodo-

form, administered internally in daily doses of 5 to 10 centigrammes. may not compete with digitalis—I mean those small doses of digitalis which render the action of the heart stronger and more regular.

Iodine is found in the urine after the external and internal use of iodoform, but rather more slowly after the former than after the latter. In either case, the complete elimination of the medicine requires much time, so that traces of iodine may be found in the urine at the end of four or five days.

Allied in constitution to chloform, iodoform is in many cases a valuable narcotic; but to the quality of relieving pain it adds in a high degree the effects of a powerful preparation of iodine. Neither iodide of potassium nor pure iodine can be compared with iodoform, when we consider its efficacy as a promoter of resolution and absorption of tumours and exudations. It seems probable that the surprising effects of iodoform are to be attributed to the facility with which iodine is liberated from it, so as to act in a nascent state on the elements of the organism.

Notwithstanding the inconveniences which I have not wished to conceal, I dare promise for this remedy a great future.—*London Med. Record*, Nov. 15, 1878.—*Monthly Abstract Medical Sciences*.

—:O:—

The Poisonous Nature of Ozone.

M. P. Thénard, in the *Comptes Rendus*, 1877, says that false views prevail among the laity and scientists concerning the action of ozone on the animal economy; for, far from being a remedy, it is one of the most energetic poisons prepared in our laboratories. Especial attention is called to the fact that, under the influence of ozone, and even when the latter is highly diluted, the blood cells contract rapidly and change their form. The pulse is retarded so markedly that, in a guinea-pig which had a normal pulse beat of 148, after remaining in an atmosphere containing but little ozone for a quarter of an hour, the pulsations sank to 130. It is possible that ozone may be a means of combating too great an increase of the temperature, but it would be very dangerous to diffuse ozone in the air of an inhabited room with the false hope of thereby removing the miasm. It is true that our strongest poisons may prove to be the best remedies in suitable cases; but it is first necessary to learn how to use them, in order not to be deceived as to the proper moment of their application and the dose. The author asks further: Are we indeed certain that ozone exists in the atmosphere? Its presence is recognized by the aid of a strip of paper, the color of which is more or less changed by contact with the air. But how do we know that this change is not produced

by some other matter in the air, which modifies the paper in exactly the same manner as ozone? Wittmann conducted an air current through the flame of a blast lamp, and obtained an air which acted on ozonometric paper in exactly the same manner as ozone. While this air disinfected stinking water, without giving it an acid reaction, ozone did not disinfect it, and rendered it acid. It is also known that ozone at a temperature of 200° C. has no stability, while the air modified by Wittmann was exposed to a temperature which softened the glass. The question of the presence of ozone in the atmosphere, as well as of its activity, is not yet settled, and new investigations are necessary for the accurate determination of the facts.—*Half-Yearly Compendium.*

—:O:—

ON DIPHTHERIA.—Dr. E. M. SNOW says, in his last report as Registrar of the City of Providence:

In connection with this subject I think it my duty to ask the attention of the people of Providence, and especially of parents, to the following statements:

1. No case of diphtheria occurs without an adequate cause. This is self-evident.

2. The cause of nearly all cases of the disease exists in the houses or premises, or within a few feet of the houses where the same occur.

3. The cause of nearly all the cases that occur in the city is breathing impure air from privy vaults or sink drains, or cesspools; or drinking impure water.

Much observation and long-continued and careful investigation have perfectly satisfied me of the truth of these propositions, and they are applicable to all cases, whether in the tenements of the poor or in the mansions of the rich.—*Med. and Surg. Reporter.*

—:O:—

DAMIANA (*Turnera Aphrodisiaca*).—Dr. Summerlin, of Sunhill, Georgia, states that having seen this drug recommended for its aphrodisiac virtues he determined to give it a trial in the case of a patient, aged twenty-seven, who applied to him for treatment. The patient stated that a few years previously his right testicle became inflamed, compelling him to remain at home several days. After the swelling left, the testes became atrophied and tender to the touch. He had previously practiced onanism. The sexual desire had nearly left him. On examination the left testis was found to be soft and very small, the other normal. He was placed upon the usual treatment—nourishing food, nux vomica, iron and cantharides; but he did not appear to improve. He was then ordered to take one drachm of fluid extract of damiana three times a day. In a short time the testis began to enlarge and lose its sensitiveness. In the course of a month it had regained its normal size, and its functional activity was restored.—*Virginia Medical Monthly.*

APPLICATION OF THE SHELLAC CLOTH OR POROPLASTIC SPINAL JACKET.—Mr. J. C. Hutchinson, of the Brooklyn Orthopædic Infirmary recommends the following material and mode of application in cases of spinal caries, and of diseases of the hips and knee-joints. The felt, or, as it is called, shellac cloth, should be of heavier kind than that employed by hatters. Then the patient, being suspended in a Sayre's swing, the following measurements should be taken:—1. From a point one and a half inches to one side of the linea alba, on a line with the anterior superior spinous process of the ilium, around the back of the pelvis, to a corresponding point on the opposite side. 2. From a point one and a half inches to one side of the middle of the sternum around the thorax, to a corresponding point on the opposite side. 3. From the seventh cervical vertebræ to the top of the sacrum: slits are cut in the lower edge of the splint an inch long and two or three inches apart, so as to allow the lower part to mould itself more accurately to the pelvis, and thus get a better base of support. It should also be cut away under the arms. The chest is now covered by a well-fitting woolen shirt or flannel bandage, the patient being suspended. The felt, made pliable by dry heat or steaming, or by immersion in very hot water, is quickly applied, and covered with a bandage from below upward very firmly, so as to mould it to all the inequalities of the surface. The splint almost immediately regains its inflexibility. It may then be removed, trimmed up, and holes punched along the front edge and reapplied. Two brace-strips may be attached to the top edge of the splint, which cross over the shoulders and buckle in front. The splint may be made more comfortable in hot weather by perforating here and there with a punch. The splint for a child weighs only eight to twelve ounces—very much lighter than a plaster of Paris jacket—is comfortable, cleanly and more easily applied, while it fulfils all indications.—*Lancet*, Aug. 31, 1878.

:0:

Editorial.

Medicine and Hygiene.

The history of medicine shows us that professional research has thus far been directed to the *cure* of disease—to the specific influence of drugs—to the chemical physiological and medicinal properties of the innumerable remedies already known and the discovery of new and hitherto unknown drugs or properties of drugs, while the prevention of disease, or hygiene is a new and, until quite recently, an unappreciated and mostly uncultivated field of labor.

The *cure* of disease by medicine has been skillfully and faithfully tried for two thousand years, and may be fairly and truthfully acknowledged to have *proved a failure*.

We may fairly claim wonderful achievements in the guidance and control of disease, in the relief and *care* of the sick, and in the correction of disordered function, but physicians have thus far failed to discover what can truthfully be denominated a *cure*. Mercury would probably come nearest to the distinction of any known drug, old and unfashionable as it is, but the wonderful effects of this drug upon syphilis cannot entitle it to the credit of being quite curative of this single disease. Iodine and mercury may be regarded as controlling in a most wonderful degree, but the medical profession of all denominations may as well confess that the scope of their influence does not include the *cure of disease*. But a wider and better field is now being or has been opened up to the profession of the present and more careful investigation of the future. We have only fairly commenced investigation of the *Hygienic* influences which determine health and disease, but here seems to offer a productive field for cultivation.

The medical colleges of the United States are about to issue a large installment of physicians and we are glad to be able to announce that there is an inviting field of labor opened up to them; a new mine but recently discovered, offering rich returns for faithful labor.

Pure air, suitable clothing, ample food and constant daily out-door life, would at present seem to be the essential of health and long life. Confined and unventilated over-crowded apartments, obstructed imperfect sewers, stagnant, decomposing accumulations of animal and vegetable matter, and uncleanness in all forms appear at the present point of knowledge to be important items in the causation of nearly all our diseases. We have written and talked about climate as influencing or determining the character, duration and termination of our diseases, but it requires no further proof that it is local hygienic conditions and not general climatic influences which determines in very great degree the differences between the healthfulness of our great eastern and western cities, and the climate of the territories or slopes of the Rocky Mountains.

We advise our patients to leave their city homes for the west or the south, forgetting for the time, at least, that our own state or city has naturally a climate as salubrious, invigorating and healthy as any place upon the earth where the sun shines. We are soon to graduate in Buffalo about fifty young men as physicians, and if they will all make hygiene a "*specialty*," and "not attend to anything else," there is ample employment for them all in this city, while in treating disease with drugs there is little room for even one.

This subject is too vast and important for complete canvas in the space allowed for editorial remark, and we have only attempted to partially outline it at present.

Death of Heman P. Babcock of Oakland, California.

In our last JOURNAL we noticed the death of Dr. Heman P. Babcock, which occurred in this city Dec. 27, 1878. Prof. T. F. Rochester furnished the following article, which we copy from the *Buffalo Express*:

"The deceased was the only son of the late Hon. Geo. R. Babcock, and was born in this city in 1840. He was carefully educated, and after spending two or three years at Yale College, left before graduating. In 1860 he began the study of medicine with Dr. Rochester, and at once evinced a special aptitude for the profession. He became so proficient that in 1862, before graduating, he passed the rigid examination of the U. S. Naval Board in Philadelphia and was appointed Assistant Surgeon in the navy. One year later, in 1863, he received his diploma from the Buffalo Medical College. The great rebellion was then in progress, and the young doctor served his country through it with fidelity and devotion. He retained his position in the navy until 1869, when he resigned to accept the position of surgeon in the line of steamers running between San Francisco and Yokohama. After one year's service in this capacity he resigned and settled down to private practice at Oakland, Cal. He soon established an enviable reputation and acquired a prominent position among the medical fraternity of that locality. He was elected President of the Alameda County Medical Society, and at the time of his death was President of the Board of Medical Examiners of the State of California. About seven months ago his health began to fail, and it was supposed he was suffering from disease contracted by exposure in the East Indies, and more particularly from a shipwreck in the Indian Ocean. At that time with many other United States naval officers and seamen he was exposed on a raft to a driving sea for fifty-eight hours without food or drink. His health rapidly declining, he determined to come to Buffalo to consult his old friend and preceptor in whom he had the most implicit confidence. All alone he made the long journey from Oakland to Buffalo, sustained by the indomitable pluck and spirit which had ever characterized him. He was completely exhausted on his arrival, but the day after rallied sufficiently to undergo an operation for his relief. Ten days afterwards the operation was repeated. On both occasions it resulted in great temporary benefit to him. He was unable, however, to fully recover from his long and prostrating illness, and he finally passed away calmly and peacefully, sustained to the last by the true spirit of Christian hope and resignation. Dr. Babcock was married in 1863 to Sarah H., daughter of Commodore Harwood, U. S. N. His wife survives together with two sons, the youngest seven years of age. He also leaves one sister, Mrs. Emily B. Allward, of Auburn.

As a physician the deceased was thorough and complete in all his

acquirements, remarkably studious and energetic, and possessed of an excellent judgment. He was a deep thinker as well as a fluent writer, and contributed largely to the medical journals of his adopted State. In such high esteem was he held by his associates in the State Medical Board, that they refused to accept his resignation when he tendered it on account of ill health. He was given an unlimited leave of absence in the hope that he would recover from his illness and resume his valuable labors in the Board. In social life he was kind hearted and generous to a fault, and his name and memory will long remain green in the hearts of those who knew him.

New Journals.

St. Louis Courier of Medicine makes its first appearance with January of 1879. It has the personal appearance and moral worth of an established reality, and we wish it and its editors a signal success. Our old and much respected friend, Dr. A. J. Steele, graduate of the University of Buffalo, and House Physician and Surgeon to the Buffalo General Hospital, is the editor, with Drs. Hardway and Schlauffeler as associates. Their first number is highly creditable to the editors and to the contributors who join them in their effort.

Detroit also sends *The Medical Advance*, to be devoted to the publication of short, illustrated articles in all departments of medicine and surgery, but largely to medicines, new and old.

Telephonic Communication.

By aid of the Edison telephone and the facilities afforded by the American District Telegraph Co., we are soon to be in direct speaking communication with our publishers and many of our professional and business friends, as well as hospitals and other public institutions.

THE DISINFECTION of hair brought from unknown or foreign sources for use in upholstery, seems to be necessary as a safeguard against infection of those employed in handling or using it, with charbon or malignant pustule, some cases of which have lately occurred in Massachusetts. A series of cases was reported to the Massachusetts Medical Society in 1870, and details of the cases are well described in the published communications of the Society for that year. A prolonged reference of the hair to a moist heat of 140° Fahrenheit or over and the use of sulphuric acid, are said by the *Boston Med. Jour.* to have been found effectual in disinfection of charbon virus by Davaine in reports in the *Compt. Rend. Acad. des Sciences*, of Sept. 29th, and Oct. 13th, 1873.

Maltine and its Combinations.

Our experience with this comparatively new Medicine has been confined to cases of derangement of digestion and imperfect nutrition, and in all instances thus far patients have expressed great satisfaction in its use, in some instances attributing to it most wonderful effects. It is growing in popular favor and is worthy of trial.

—————:o:—————

LACTOPEPTINE is now a favorite prescription with many physicians in cases of Indigestion, Dyspepsia and other derangements of digestion, and seems to be also growing in favor with the public, though it is a remedy dependent upon the profession alone for its success. We have given it a trial, and patients speak of its effects most favorably in many cases. It seems worthy of a trial, at least, indicated, as it is in a wide range, of functional derangements.

—————:o:—————

Books Reviewed.

Annual Reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the Fiscal years 1876 and 1877. By JOHN M. WOODWORTH, M. D., Surgeon-General, Washington.

These reports are full and complete in detail and have invoked a vast amount of clerical labor. The tables show that a large number of the Seamen coming under the care of the Marine Hospital Service are annually permanently unfitted for duty as Seamen. In 1876 over three hundred cases of Phthisis; One hundred diseases of the Calculatory System; Seventy-five of Bright's disease; Forty-eight cases of Hernia; Eighty-eight cases of Paralysis, and two thousand cases of Syphilis are recorded.

The work is highly creditable to the Surgeon-General, indicating the extent and character of the labor in this department of the Marine Service.

The Cell Doctrine—Its history and present state, for Students in Medicine and Dentistry. Also, a Copious Bibliography of the Subject. By JAMES TYSON, M. D., Professor of General Pathological and Morbid Anatomy, in the University of Pennsylvania, &c., &c. Second edition revised, corrected and enlarged. Illustrated. Philadelphia: Lindsay & Blackiston, 1878. Buffalo: Theodore H. Butler.

This is a most carefully written and beautifully illustrated work upon the cell doctrine of the present day, containing a complete history of its origin, nature and growth, with an impartial review of the views and opinions represented by Prof. Huxley, Prof. Owen, Herbert Spencer, Grove, Tyndall, and many others, accurately detailing facts and conditions, by far the most interesting of all the objects known to physical science. We can hardly convey to our readers an idea of how much they will be interested in its careful perusal, no description being capable of affording any adequate estimate of

its interest and value. He says: Prof. Owen declares himself the champion of spontaneous generation, and maintains also that the formation of living beings out of *inanimate matter* by the conversion of physical and chemical into vital modes of force, is a matter of daily and hourly occurrence. Those of our readers interested in the exciting and wonderful problems of the present day, will not fail to obtain this most suggestive discussion upon all the important points involved.

A Practical Treatise on the Medical and Surgical Uses of Electricity, including Local and General Faradizations; Local and Central Galvanization; Electrolysis and Galvano-Cautery. By GEORGE M. BEARD, A. M., M. D., and A. D. ROCKWELL, A. M., M. D. Second edition *Revised, Enlarged* and mostly Re-written, with nearly two hundred Illustrations. New York: William Wood & Co., 27 Great Jones street, 1878.

This work was first published in 1871, and is well known to the profession as a standard upon electricity.

The science of electro-therapeutics has progressed both with the profession and public very rapidly for the past few years, though it still remains largely in the hands of itinerant manipulators, who advertise and use it indiscriminately and, for the most part, ignorantly. This book is a comprehensive, well written text book upon the subject, and our readers may depend upon its containing all that is known, with full directions for the use of electricity by those desiring to make a trial of its effects.

Diseases of the Bladder and Urethra in Women. By ALEXANDER J. C. SKENE, M. D., Professor of the Diseases of Women in the Long Island College Hospital, Fellow of the Gynecological Society of Boston, Member of the Medical Society of the County of Kings, and of the Obstetrical Society of New York. New York: William Wood & Co., 27 Great Jones street, 1878.

This work comprises eight lectures originally designed for the college class room, and intended to embody only those facts which the student and general practitioner require to know in the every-day demands of active practice. These lectures have been revised and enlarged to constitute a complete text-book upon the Functional Anomalies of the Bladder and Urethra.

Wood cut illustrations simplify the text and add to the value of the work, which we judge will be received and appreciated by the profession as a text-book guide in general practice.

Contributions to Reparative Surgery; Showing its application to the treatment of deformities produced by destructive disease or injury; Congenital defects from arrest or excess of development; and Cicatricial Contractions from Burns. By GURDON BUCK, M. D. Illustrated by numerous engravings. New York: D. Appleton & Co. 1876.

This volume of two hundred and thirty-seven pages is devoted to the report

of cases with illustrative cuts, occurring in the practice of the Author. The signal achievements of this distinguished Surgeon are apparent from a glance at the illustrations. Surgeons have not experienced more marked triumphs in Reparative Surgery than is here shown in the report of Gurdon Buck, of New York.

—:O:—

Books and Pamphlets Received.

An Atlas of Human Anatomy. Illustrating most of the Ordinary Dissections, and many not usually practiced by the Student. Accompanied by an Explanatory Text. By Rickman John Godlee, M. S., F. R. C. S. Philadelphia: Lindsay & Blakiston. Part I. Price, \$2.50.

Modern Medical Therapeutics; A compendium of recent Formulæ and Specific Therapeutical Directions. From the Practice of Eminent Contemporary Physicians, American and Foreign. By George H. Napheys, A. M., M. D., etc. Sixth Edition. Enlarged and Revised. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1879. pp. 590.

A Practical Treatise on the Diseases of the Testes, and of the Spermatie Cord, and Scrotum. By T. B. Curling, F. R. S., Consulting Surgeon to the London Hospital, etc. Fourth Edition. Revised and Enlarged. Philadelphia: Lindsay & Blakiston. 1878. pp. 645.

Physiology; Preliminary Course Lectures. By James T. Whittaker, M. A., M. D. On the Influence of Physiology upon Practice; On the Conservation of Forces; On the Origin of Life, and the evolution of its forms; and on Protoplasm, Bone, Muscle, Nerve and Blood. Illustrated. Cincinnati: Chauncy R. Murry, 103 W. Sixth St. 1879. pp. 272.

Conspectus of Organic Materia Medica and Practical Botany, Comprising the Vegetable and Animal Drugs; Their Physical Character, Geographical Origin, Classification, Constituents, Doses, Adulterations, &c. By L. E. Sayre, Ph G. Philadelphia: D. G. Brinton, 115 South Seventh St. 1879. pp. 211.

Differential Diagnosis; A Manual of the Comparative Semeiology of the more important Diseases. By F. de Havilland Hall, M. D., Assistant Physician to the Westminster Hospital, London. Philadelphia: D. G. Brinton, 115 South Seventh Street. 1879. pp. 201.

A Practical Manual of the Diseases of Children with a Formulary. By Edward Ellis, M. D. New York: Wm. Wood & Co., 27 Great Jones Street. 1879. pp. 210.

Report upon the case of the late Dr. E. A. Groux, to the Brooklyn Anatomical and Surgical Club. By Charles Jewett, M. D.

Fifty Years Ago. An Address to the Graduating Class of the Medical College of the Pacific, for 1878. By Henry Gibbons, Sr., M. D., Prof. of the Principles and Practice of Medicine and Clinical Medicine.

Annual Report of the Rhode Island Hospital. 1878.

Consumption and its Treatment, with the Hypophosphites. By J. A. McArthur, M. D. (Harv.)

Proceedings of the Board of Experts, Authorized by Congress, to investigate the Yellow Fever Epidemic of 1878. Meeting held in Memphis, Tenn., Dec. 26th to 28th, 1878.

Transactions of the American Ophthalmological Society. Twelfth, Thirteenth and Fourteenth Annual Meetings. 1878.

Twenty-Sixth Annual Announcement of the Medical Department of the University of Vermont, for the year 1879.

Optic Neuritis, with notes of three Cases. By C. J. Lundy, M. D.

Vick's Floral Guide. No. 1. 1879.

On the Fracture of the Femur. By Edward Borck, M. D. With Illustrations. St. Louis, Mo.

Twenty-sixth Annual Report of the Pennsylvania Training School for Feeble-minded Children. Media, Delaware Co., Pa.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

MARCH, 1879.

No. 8.

Original Communications.

—:O:—

*ART. I.—The Importance of Chemical Analysis in Cases of
Obscure Diagnosis.* Read before the Buffalo Medical Association. By C. A. DOREMUS, M. D., Ph. D., Prof. of Chemistry in the Buffalo Medical College.

The termination of two of the most exceptional criminal trials ever brought to public notice, and their wide-spread notoriety, has led me to review some of the points especially interesting to the medical profession, and to call attention to the capabilities of medical science in answering certain questions that were presented before the juries. I refer to the trials of the Rev. Geo. B. Vought, for an attempt to poison his wife by administering antimony as tartar emetic, and that of Kate M. Cobb, for the murder of her husband by arsenical poison.

In the early part of 1878, a physician called upon Prof. R. Ogden Doremus, and requested that an analysis of certain fluids be made for the detection of poison. These fluids were tea, medicine and ice-water. The physician stated that he was unable to account for the symptoms in his patient, a lady—he mentioned no name at that time—and he feared an attempt was being made to

poison her. Part of these fluids had been partaken of, and vomiting had resulted. No particular poison was suspected.

He was advised to remove his patient at once, and thereby prevent any further dosing—also to save and forward a specimen of her urine, that it might be analyzed. Such a specimen was received the next day, and the physician was telegraphed to reserve more. His request was complied with. Specimen No. 1 was voided Feb. 21, and measured five fluid ounces. Specimen No. 2 was voided Feb. 24, and measured 16 fluid ounces 3 drachms. The analysis of the suspected liquids revealed the presence of antimony in each. In some, tartaric acid and potassa were also detected.

The chemical report showing that poison existed, action was begun by the lady's brother, and an indictment by the Grand Jury brought Vosburgh to trial before the Court of Oyer and Terminer of Hudson Co., New Jersey. He was tried and acquitted. But the verdict of the jury was not the verdict of the people, and deserted by his wife, his parish disaffected, Vosburgh has left his charge and disappeared. It will be impossible to review the whole case, let me therefore cull from the vast amount of medical and chemical testimony the salient points.

The defence admitted that antimony was found in all the suspected liquids.

The defence admitted that antimony existed in the urine.

The defence claimed that the quantities found in the liquids indicated so large an amount of antimony, that had they been partaken of in the proportions stated in the circumstantial evidence, death must have inevitably ensued.

The defence claimed that a specimen of the woman's urine had failed to show, in the hands of their expert, any antimony.

The defence claimed that the woman's brother had dosed all the suspected fluids, and that Vosburgh was innocent of the crime, and his wife an invalid from the effects of disease solely.

In connection with the question of the quantity of poison administered, a discussion arose as to the "tolerance" of poisons. Expert after expert was called to give his opinion. Few had any knowledge of the subject from personal observation of the symptoms produced by the continued action of antimony.

The burden of evidence seemed to lean to the side of "tolerance," and was supported by the authorities quoted.

Reesc, in his journal of Toxicology, p.p. 32-37, separates Habit from Tolerance, and defines the latter: "By this is understood the ability of the system to bear very large doses of certain poisonous substances, in consequence of a morbid condition of the economy, and altogether independent of habit. A good illustration is afforded in the case of tartar emetic. In acute pneumonia, and bronchitis, and in acute rheumatism, immense doses of this substance have been given, not only without producing its usual poisonous effects, but with a positive mitigation of the disease. This practice originated with Tomassini, Rasori and Lænnec, and was formerly very much in vogue under the name of the Italian or contra-stimulant system. * * * But the important fact that such quantities are tolerated only in certain morbid states of the system, is studiously kept back." Other authors make similar statements. In this particular case the defence claimed that Mrs. Vosburgh was suffering from a rheumatic affection, and the prosecution not only admitted this, but claimed that the antimony complicated the symptoms. The tartar emetic had been administered repeatedly, and not only "tolerance" may have existed, but also in some degree, "habit."

But whether "tolerance" existed or not, proof was required of the administration of the poison, and the finding of antimony in potions could not furnish such evidence. Antimony must be detected in the vomit, the fæces or the urine.

The woman's brother had obtained each and every one of the liquids, including two specimens of urine, and the defence having disposed of the attending physician, on the score of ignorance, had only the brother to attack, and they charged him with having added the tartar emetic to each separate liquid before sending it for analysis.

Had vomit or fæces been saved, the presence of any poison therein would have been explained away in like manner. For the purpose in view, the urine offers all necessary evidence except that an analysis of fæces or vomit would perhaps furnish more convincing proof of the quantity administered.

Specimen No. 1 of urine, measured 5 fl. oz., was voided Feb. 21, three days after partaking, as was supposed, the last dose of poison.

Specimen No. 2, measured 16 fl. oz. 3 dr., was voided Feb. 24, six days after. Specimen No. 3, measured from 4 to 5 fl. oz., was voided Mar. 2, between 3 and 4 p. m., twelve days after the last dose of poison, and one day after the bowels had been twice evacuated. No evacuation had taken place prior to this for a period of six weeks and two days, and the first dose of poison was supposed to have been given in January, the last on Feb. 18.

Two different methods were used to determine the quantity of antimony in the first specimens. In No. 1 the antimony was extracted, and then weighed as sulphide. In the other, as antimoniate of antimony. No. 1 contained 0.1098 grs. of tartar emetic by calculation from sulphide, or if 40 ounces of urine were voided per diem, 0.8788 grs. No 2 contained 0.2492 grs. of tartar emetic, or for 40 ounces, 0.60875 grs. Thus the actual amount of antimony found in specimen No. 2, exceeded that in No. 1 by $\frac{12}{100}$ of a grain. But if we assume that as much urine was voided on the first day as on the second, then there would be an excess in No. 1 over No. 2. If calculated at 40 ounces per diem, this excess would be $\frac{27}{100}$ of a grain.

No change had taken place during this time in the state of the patient's bowels, nor had there been vomiting.

The attending physician having been discharged, another was called to take his place. He was informed of the accusation, and upon request, obtained a specimen of urine from the woman, and took it to an expert for analysis. It failed to yield any evidence of the poison. How can this failure be accounted for independently of a false charge of attempt to poison?

1st.—A cessation in the elimination of the antimony from the woman's system before the sample was obtained.

2d.—The amount in the urine too infinitesimal to detect.

3d.—An "intermittence" in the elimination.

4th.—An error in the analysis.

ELIMINATION.

Is antimony always eliminated by the urine?

If eliminated, how long a period is required ?

What is the rate of elimination ?

May the elimination cease, and antimony still remain in the system ?

Some of the questions may be answered, not only in regard to antimony, but also in respect to other metallic poisons.

Since the time of Orfilas, experimental researches on the voiding of metallic poisons by the urine, the fact of these bodies being *generally* found in the urine, has been usually acknowledged. When large doses of the metals, especially arsenic and antimony, have been taken, it is the exception not to find them in the urine. Still this exception, though existing, would not apply in this case, as two specimens of urine had been found to contain antimony.

As regards the period of elimination of antimony, it may be generally stated, as commencing shortly after the ingestion of the poison, and though rapidly eliminated, may continue to show itself for two or three weeks. So much depends, though, upon the condition of the bowels, the skin, &c., that no positive rule can be laid down. The rate is a diminishing one usually, at least, many recorded cases show a gradual decrease.

That a poison may exist in the body, may be eliminated by the urine for some days and then cease to appear, some of the poison remaining in the tissues, is an incontrovertible fact. There are numerous cases of this kind cited by Taylor, Tardieu and others, and chemical analysis has proved again and again, the absence of the metal in the urine, the poison having been administered long enough before death for it to appear in that excretion, and though marked reactions were obtained from the tissues.

Mrs. Vosburgh's bowels had been constipated and unmoved up to the day before specimen No. 3 was collected. The skin was dry, and there was no vomiting from Feb. 19th. The only channel of elimination was that of the urine, and if antimony had been administered, it would have been found, as it was found, in that excretion. But the complexion of matters now changed—the patient had had two movements of the bowels, induced by injections, and a new mode of exit was opened, and the excretion by

the kidney may have ceased, either from a total elimination or a change in the channel.

As to the second condition, viz. the presence of an infinitesimal amount too small for detection.

No doubt a limit exists in the delicacy of chemical reaction, and especially do we find that in the examination of organic mixtures, bodies often escape even the most accurate analysis. The defence claimed, however, that the methods they employed were exceedingly accurate.

They committed, however, a gross error. In this both the physician and the chemical expert were at fault. To be sure, they both regarded this as a case of false accusation, or a case of blackmail, and the symptoms of the invalid being so obscure that doubt existed about it being antimonial poisoning at all, it was deemed essential to test only a small specimen of urine.

This error in judgment on the part of the physician should at least have been corrected by the chemical expert, for the latter should have demanded more than 4 or 5 oz. of urine, and on failing to get evidence, should have called for a second specimen to satisfy not only himself but the cause of justice. If the object were to prove the absence of antimony, the course pursued was the correct one; if the object were to prove either the presence or absence of antimony the method was eminently fallacious.

The search for a metallic poison is still more an organic poison is not like testing for albumen in sugar. Medical men are already aware that chemical analysis fails to reveal the presence of lead in a small quantity of urine, whereas in a larger quantity of urine it is rarely detected by the same process of analysis. No physician should be satisfied with one testing of the urine with a negative result where a graver suspicion existed that the body sought and not found was the cause of the disorder. Taylor says particularly, after citing cases where no poison was found in the urine, though detected in the tissues, "These facts lead to the conclusion that although the urine is an important channel of elimination, we cannot place absolute reliance on a negative result. The detection of it in this secretion shows that the poison has been taken, but the non-detection of it does not necessarily show that there is no arsenic in the body." p. 39, *On Poisons*.

With pure solution of the metals we are able to arrive at a definite idea of the delicacy of a chemical test, but with compound organic liquids such as urine, where there is reason to suppose, too, that the metal may exist in some peculiar combination with organic matters, we are forced to proceed with other processes for their detection, and the conditions of the tests are as yet not thoroughly established. The chemist should, therefore, be on his guard, lest he draw hasty conclusions, especially when only a small quantity of urine is placed at his disposal.

The next point opens much room for discussion. Are poisons eliminated constantly, though in a decreasing ratio, or is there an ebb and flow, an intermittence in the elimination. Would a specimen of urine be free of a poison at one time, yet if voided a few hours later show its presence? There is great need of research upon this subject. The medical or toxicological works give very meagre or no information. Many claim that in fact there is an intermittence, and argue also by analogy, from the facts recorded in regard to albumen, sugar and other normal as well as abnormal constituents of the urine. No physician would be satisfied from the absence of casts in one specimen of urine of their entire absence. The repeated examination of urine from day to day in cases of albuminuria or diabetes points conclusively to the accepted doctrine. Thudichum in his Pathology on the Urine, on pp. 407-8, points out very clearly this fact in connection with plumbism and mercurialism, and cites a case of lead poisoning, where potassium iodide was administered, yet no lead found in two analyses, yet at a later period it made its appearance. Both physicians and chemists who have had anything to do with examinations for lead can corroborate this observation. My own experience is decidedly this way.

With regard to mercury. Thudichum says, "Not in all cases of mercurialism has it been possible to detect the metal in the urine. In some cases, the metal appeared in the urine at *intervals*, even where the symptoms had undergone no remission. In other cases, the *reappearance* of the metal in the urine was accompanied by a decided increase in the severity of the mercurial symptoms." Much the same applies to copper. It may be argued that arsenic

and antimony differ from these metals, in that they are more soluble and seem to be more rapidly voided by the urine. It is claimed that arsenic is voided as an arsenate. Arsenic acid and phosphoric acid produce isomorphous compounds. Is it unreasonable to suppose that these arsenates may not produce analogous effects to that of albumates in the case of lead or mercury, and that an intermittence might occur? Argue as we may, theorize all we please, the facts can only be established by experimental research.

It is not only in cases of poisoning that such information would be of service, but it is a question of importance in therapeutics. We need not only experimental data, but clinical observation, that the aberration from the normal functioning of the body shall be clearly understood.

But admitting that all the causes so far enumerated to account for the failure to detect antimony do not apply in this instance, there remains still another which would account for the negative result offered by the defence. This lays in an error in the process of analysis.

The urine at this voiding, viz., 12 days after the last dose of poison, could not contain at most much antimony, nor would it be reasonable to expect a decrease by an arithmetical ratio, as the defence absurdly set up. The expert could only hope to find a trace at least. To render the detection *sure*, however, he divided the sample, 4-5 oz., into three unequal portions, the largest being about half, and then applied different tests to each part. Wherein was such a course warranted? Who could expect to get proper evidence using only an ounce or two of urine? In the analysis of the body of Mr. Cobb it was deemed advisable by the State Attorney that I should have an associate, and it was suggested that the viscera should be divided and each one of us should make an analysis. I protested against such a procedure, and the result of the analysis has abundantly corroborated my judgment. Had certain parts been divided and separately analyzed no poison would have been found, whereas from the larger quantity, clear and unmistakable proof was readily obtained. Woodman and Tidy in their *Forensic Medicine and Toxicology*, p. 77, in speaking of dividing the parts sent for analysis and searching for various poisons

by special tests, conclude by saying, "In the second case, as we need hardly say, the operator would be adopting the best possible means of securing a failure; for if the poison be present in very small quantity, the division of it into many parts would be a certain way of baffling the investigator." But besides dividing the specimen the method of analysis employed upon each part was open to serious objection; so, that taken altogether, the door is left wide open for doubts upon the question of absence of poison. The chemist, on cross-examination, admitted that he was unaccustomed to the analysis of urine or of fæces; did not know the constituents of normal urine, and was unfamiliar with some of its normal properties. He, notwithstanding, descended to a personal attack upon the expert for the prosecution, and belittled himself and science in decrying some of the most refined methods of chemical research. Under all the circumstances then, the prosecution had reason to believe that the presence of antimony in Mrs. Vosburgh's urine was demonstrated. The defence in addition had failed to save the fæces and have them analyzed, and had made no report of an analysis of a pocket lining said to contain antimony. This antimony was spilled from a vial in Sickles' pocket, and the truthfulness of important evidence hung upon the presence of tartar emetic in the lining.

The medical evidence on the symptomatology of the case was conflicting in the highest degree. The physicians called by the defence were inclined to judge the case from a medical standpoint only, and to ignore the value of the urinary examination. Those for the prosecution in addition to testifying that the symptoms might be accounted for by antimonial poisoning, as well as "rheumatoid gout of the stomach," as the defence set up, considered the chemical analysis as the deciding point—the pivot upon which the whole case turned.

They scouted the idea that a country farmer could have dosed the specimens of urine so that they should contain only that trace of poison found, and do it so scientifically as to show the relation that existed in regard to decrease in elimination. They saw abundant reasons, however, from many standpoints to account for the failure to detect antimony in the specimen of urine sent to the ex-

pert for the defence. The judge charged the jury that antimony was found. It remained for them to decide whether Vosburgh had administered it or not. Their verdict was as I stated, an acquittal, but the villainous character of part of the circumstantial evidence and the subsequent discovery by a druggist, at whose store Vosburgh was a frequent visitor, that about an ounce of tartar emetic had been stolen from his shelf, coupled with the druggist's recollection of conversations with Vosburgh on the subject of poisons, has turned the verdict in the minds of the community, and Vosburgh has been obliged to leave the city and his pastoral charge.

Throughout the trial the necessity of chemical analysis, as an adjunct to diagnosis, is especially made evident. The necessity, too, of searching scientific investigation upon the absorption and elimination of poisons was clearly demonstrated.

The next case I propose calling attention to, is that of the demise of Chas. H. Cobb, Jr., of Norwich, Conn., under suspicious circumstances. Enjoying general good health, in the early part of February, 1878, Mr. Cobb was seized with an unaccountable attack of sickness, accompanied by strange symptoms. His medical adviser gave him some relief, but subsequently Mr. Cobb was again violently attacked, and presented, among others, symptoms of partial paralysis. This was attributed to lead poisoning, and he was treated accordingly. Nevertheless the case was obscure and the diagnosis very unsatisfactory. Though prescribed for, his general health became worse, and on June 5th, soon after a meal, he was seized with convulsions and died suddenly, with opisthotonos that was ascribed to strychnine.

The viscera were sent to me for chemical analysis, and the search for poisons revealed arsenic and copper. Testimony to this effect in connection with circumstantial evidence, induced the Coroner's jury to order the examination of the body of Mrs. Hattie E. Bishop, also of Norwich, and at my request the body of Chas. H. Cobb, Jr., was also disinterred.

Mr. Bishop and Mrs. Cobb were confined in jail to await further developments.

Mrs. Bishop's body also contained arsenic and copper.

I had obtained, on the exhumation of Cobb's body, the greater part of the brain, a portion of thigh muscle, and about four or five ounces of urine that remained in the bladder. I am confident from the condition in which I found the brain and urine, that there was no post-mortem imbibition. None of the viscera were present, and there was only a little exudation of liquid in the abdominal cavity. The brain placed in the abdomen after the first post-mortem did not touch this fluid. The urine was bloody in color, and already partly decomposed.

On chemical analysis, the urine gave evidence of arsenic, and about 0.06 of a grain of arsenious sulphide, equal to 0.05 of a grain of arsenious oxide was extracted.

I was impressed by the approximation in the amount of arsenic in this case, to the amount of antimony in the other. In the manipulation of the two about equal amounts of urine were examined, and the precipitates of antimony and arsenic appeared about corresponding in bulk. The amounts of antimony and arsenic partaken in these cases respectively, and the period of time over which they were being absorbed, I should judge, from the circumstantial evidence, to be nearly equal. Arsenic was by this analysis of the urine, then, proved to have been administered some time previous to death. Only a little was found in the contents of the stomach and intestines and brain, while larger amounts were extracted from the urine, spleen and kidneys. Arsenic was thus demonstrated to have been absorbed.

In this trial the defence claimed that Cobb was an arsenic eater, and that "Habit" or "Tolerance" *could* be established. It would seem, then, comparing these two cases of poisoning, as if "salvation to the one was death to the other." Mrs. Vosburgh could not have "tolerated" the amount of poison administered and live. Mr. Cobb died because he stopped taking the poison. The science of Toxicology would be grateful if the medical profession could decide speedily upon the question of "tolerance" and "habit." The *facts* adduced by the chemist after months of laborious search, are too frequently explained away by some theorist in medicine.

You are all familiar with the termination of this trial. Mrs. Cobb has just been convicted of murder in the second degree, and

sentenced to a life imprisonment. Mr. Bishop has confessed to the double crime and will be tried shortly.

But this case of poisoning seems without parallel. According to Bishop's confession, his own wife was murdered probably by arsenic given by Mrs. Cobb, and morphia administered by himself. Arsenic I have already found, but have not, as yet, concluded the search for morphia.

Mr. Cobb was dosed, first with aconite, secondly by morphia, then arsenic and finally strychnia. Neither aconite nor morphia could be found—they were administered too long before death to be detected. But the analysis did demonstrate arsenic and strychnia, and besides these, copper and bismuth. The copper came probably from many sources, and was proved to be unconnected with the arsenic. Bismuth had been prescribed as a medicine.

Mr. Cobb had partaken of strychnia in medicine for a couple of days before his death, to the amount of one-half a grain in all—but this would scarcely account for its detection in the contents of the stomach, intestines and in the liver.

During this trial the question of absorption and elimination also came up, in addition to that of "tolerance," and the same dearth of facts was as painfully apparent as in the Vosburgh trial.

Having before us the main features of these two cases, so diametrically opposed when viewed from one stand-point, so wonderfully corroborative when viewed from others, let us draw a few conclusions.

1st. Authorities seem to agree in regard to the habituation of the human system to organic poisons, but claim that an *inorganic* poison cannot be administered in much more than a medicinal dose without danger of its toxic effects. A "tolerance" may exist in some diseased states of the system, but only for special poisons—as with antimony in the treatment of pulmonary affections. Arsenic, most claim, cannot be thus administered.

2d. That both arsenic and antimony are rapidly absorbed, but that there is much need of extended clinical observation in regard to the rapidity of such absorption. The literature is quite com-

prehensive on this point in regard to arsenic, but not so with antimony.

3d. As regards elimination, few facts are known, and there is great need of thorough systematic research. Under this head the following questions deserve attention:

(a) Is the poison always eliminated? From what is already known we can answer *generally* yes. Sometimes, however, the poison fails to show itself.

(b) Does the elimination continue, having once commenced, till all poison is removed from the system? If by all the channels, undoubtedly yes; but if only by the urine, the record of cases says decidedly no.

(c) Is the rate of elimination continuously decreasing, or does it fluctuate?

(d) Does the fluctuation ever amount to a disappearance with subsequent reappearance?

If the chemist were called oftener to aid the physician in the treatment of cases of accidental or suicidal poisoning, an answer to these two last propositions would soon result.

However problematical the search for poisons may *seem*, these two cases furnish actual proof of the benefit that accrues from a careful chemical analysis. Instruction is now given in the medical schools, with regard to the analysis of the urine, and physicians are familiar with the tests for abnormal constituents, such as sugar and albumen. The search for poisons is, however, far more intricate, and demands special facilities that the ordinary practitioner does not possess, and requires more time than he has to spare. He must call, therefore, upon an *expert* chemist. I say advisedly expert, for the processes of ordinary analytical chemistry frequently do not yield results when applied to the examination of organic mixtures. Analyses of this kind become almost a specialty, and demand an acquaintance with medicine which is wanting, as a rule, in chemists.

When a thorough analysis is made, however, the poison, if in the system, will *generally* be found, for it is *generally* eliminated. Its detection is *sure* proof of its administration, and a positive indication of the cause of the disorder. Only after a negative re-

sult with two or more samples of urine are we justified, however, in claiming an *absence* of poison, and even this needs qualification in special cases.

The analysis of the suspected liquids and of the urine, was with Mrs. Vosburgh the means of recovery. A timely stoppage of the dosing, a prompt administration of suitable and nutritious food raised her from the sick bed. A thorough analysis of Cobb's urine would have undoubtedly revealed the presence of arsenic, and been the means of saving his life. It is not among the low-bred and the vulgar that we meet with these dastardly attempts against human life, the record of cases, especially with antimony, shows that the perpetrators of such crimes live in a higher sphere of society. It is, therefore, doubly necessary for the physician to be watchful, and when he mistrusts, or when the disease baffles his powers of diagnosis, he may, I claim, find ready help at the hands of the chemist.

NOTE.—While the above was in press my attention was called to a note published by the expert for the defence in the Vosburgh case in the Proceedings of the American Chemical Society, Vol. II, No. 4, p. 144. After giving the results of several analyses he remarks, "The above observations and results would indicate that antimony, when swallowed even in very small doses, is very promptly eliminated, in part by the kidneys, and continues to be so eliminated constantly. With such small doses as were here employed, (one grain and a half in three days-), it is not likely that the elimination could have been traced much further than it was in these experiments, namely, for five days after the last dose." It is beyond the bounds of the purpose of my present article to criticise the chemistry of the method of analysis. That I reserve as a fruitful field of future work.

For the present I will only call attention to the fact, that in the analyses of urine referred to in the above extract never less than $7\frac{1}{4}$ fl. oz., and sometimes as much as 30 fl. ounces were taken for analysis. Yet this same expert was willing to stake his scientific reputation on an analysis of $2\frac{1}{2}$ fl. oz. of urine *twelve* days after the administration of the last dose of tartar emetic.

————:O:————

ART II.—A Case of Fistula in Ano, with a few practical remarks regarding the Surgical operations for its relief; as also the action of the Sphincter Tertius described by Hyrtl. By T. G. COMSTOCK, M. D., St. Louis, Mo.

Cases of fistula in ano, or more correctly fistula in recto, occur so frequently in surgical practice, that I shall take occasion to call the attention of the profession to a few particulars regarding the surgical anatomy of the sphincter muscles.

Some years ago, when a pupil at the University of Vienna, while attending the lectures of Prof. Hyrtl, I first learned the existence of a *Sphincter tertius*. It is remarkable that this sphincter is not mentioned by Gray or other English anatomists. That such a

muscle, (whose action is really that of a sphincter), does exist, is to me a matter of no doubt; and if such were not the case, the radical operation for fistula, (dividing the lower sphincters), would be followed by very unpleasant consequences—in other words we should have as a result, involuntary fecal evacuations. That such an untoward result fortunately does not often occur, every experienced surgeon knows, but the reason for this we shall give by quoting the following, which we have translated from Hyrtl's Anatomy.*

The older surgeons were astonished after having divided the sphincter muscles in operations for fistulæ, that no involuntary discharges of fæces follows. Faget found after removing the lower end of the rectum from a patient, that he could retain his fæces and flatus, and he explained this upon the hypothesis that a new sphincter must have subsequently formed. Houston was not disinclined to believe that the lower portion of the rectum, where a fold occurs as it passes through the pelvic fascia, was surrounded with a development of circular fibres. Lisfranc, who many times extirpated the terminal portion of the rectum, noticed that such patients were not deprived of the power of holding back their stools, and declared it as his opinion, that as a positive necessity a superior sphincter must exist. Likewise every unprejudiced observer must allow of the existence of such a muscle, for the reason that in prolapsus ani, where both the external and internal sphincters are paralyzed, no involuntary stools occur.

“In rupture of the perineum and congenital opening of the rectum into the vagina (cloaca) the same thing happens. Ricord cites the case of a woman, æt. 22, where the rectum opened into the vagina, yet the bowels acted regularly, and what is more remarkable, the husband after having been married three years, had no conception of this abnormal condition in his wife.”

“When the index finger is introduced into the rectum of a patient who has had no action from the bowels for a few days, as a rule, just above the anus, no fæces will be found, and yet the column of fæces would naturally sink down to this point, if not held

* *Handbuch der topographischen Anatomie*, Von Josef Hyrtl, Zweiter Band, p. 141, 5te Auflage, Wien 1865.

back by an opposing circular muscle. Kohlrausch opposed this view, which presupposes the existence of a third sphincter, because he found upon dead subjects, as well as in patients, hard scybala in the lower portion of the rectum; but I take occasion to mention that the existence of fæces in the rectum upon subjects, simply proves that the sphincter tertius no longer acts, and the same thing in the living, (in patients), may be the result of diseased conditions, and which affords an example of an exception to the rule. Enemata which are not introduced high enough into the rectum, are liable to come away immediately; on the contrary, if the canule (extremity) of the syringe is pushed up sufficiently high the injection will be retained a longer time. Dr. O'Beirn called attention to the fact that an elastic tube can be introduced quite a distance into the rectum, before any flatus is given off, and then the discharge comes suddenly. All these observations make it probable, *a priori* that at a certain distance above the internal sphincter ani, a third sphincter must exist. Nelaton, and Velpeau have demonstrated the existence of it, as a thickened band of muscular fibres, four inches above the anus. This muscular development, is not always easy to find. To find it upon the cadaver, care should be taken that the rectum is not forcibly distended with air.

In order to demonstrate it well, the rectum should be cut upwards longitudinally, and stretched upon a board, and the several layers carefully dissected off, until the muscular layer is reached, when the sphincter tertius, if present, will be seen as a broad bundle of thickly conglomerated muscular fibres. Not unfrequently this investigation will be fruitless of a result, but the physiological fact that there are developed muscular fibres encircling the rectum at this point, is not to be doubted. In one instance I have publicly demonstrated the existence of the fibres of the sphincter tertius taking their origin from the sacrum.

This third sphincter does not permit the excrements, (fæces), which are in the sigmoid flexure and are pressing down, to reach the lower rectum. Only when the desire for an evacuation exists, does it relax and allow the fæcal column to come down on to the lower sphincters. These latter can voluntarily keep back the stools for a long time, and are assisted in their efforts by the leva-

tor ani muscle, as likewise by the buttocks, (nates), firmly pressed together, so that when one is unfortunately in such a critical situation, (for obvious reasons) he takes care not to take long steps, or to run. At last these muscles from having such an unusual strain upon them, become paralyzed, and then follows, what, under such circumstances is of course unavoidable. When the lower end of the rectum is removed, or the sphincters are divided as in the operation of "rectal fistula, then the patient will not be afflicted with the most hopeless and disgusting of all ailments, viz., involuntary stools; for when the slightest desire for a stool is experienced, and the upper sphincter is relaxed, the evacuation below is being accomplished, because simultaneously the two lower sphincters will involuntarily be relaxed."

I should perhaps mention that Dr. James R. Chadwick, of Boston, in a very elaborate article,* regards the sphincter tertius, as "a collection of constricting bands, and a part of the general circular layer of muscles, whose function is to *dilate before*, and *contract behind* the scybala, thereby propelling them on their way, and not retarding them." He proposes to call this sphincter, a "*Detrusor faecium*." I did not intend to discuss Dr. Chadwick's essay, but the facts adduced by Hyrtl are undoubtedly true. I was called in consultation in May last, to see a gentleman, who to avoid a collision, jumped from a railroad train going at the rate of forty-five miles an hour; he struck with great violence upon the end of a railroad iron, which seems to have raised up, and which penetrated him in the region of the perineum. The injury was so great, that it seemed almost as if he was cleft in twain; suffice it to say, the lower end of the rectum was so contused and injured, that it sloughed away. Fortunately the patient had a short time previous to the accident, passed a large stool, and notwithstanding the severity of the shock and loss of blood, with the subsequent surgical fever, he had no operation from his bowels for some seven days. This gentleman has recovered, but the lower portion of the rectum is quite gone, and yet he can control his stool. Is not this an instance of the existence of Hyrtl's sphinc-

* Transactions of the American Gynecological Society, Vol. 2, p. 43. Boston, 1878.

ter? When we have a fistula of the rectum, why is it necessary to divide the sphincter in order to enable the parts to heal.

1st. Because all efforts at healing as a general rule fail, unless we can expose the pyogenic membrane which often lines the fistulous tract. 2d. The healing process is prevented by the constant motions of the sphincter and levator ani muscles; because with every act of respiration they contract, and thus prevent healing; and to do away with this effectually we must make a section of the sphincter. Occasionally cases are reported where a cure results without dividing the sphincter.

Sir Astley Cooper mentions two cases; Ashton* mentions several in his large experience; Dr. Ordway, of Boston,† reports that he has cured many cases by injection with sesqui-carbonate of potash (vegetable caustic); however, such cures are, in the experience of the profession, exceedingly exceptional. In my own experience I know of only one case thus cured:—it was a clergyman, who refused to be “cut,” and after one year reported to me that he was cured by injections and pressure combined; the pressure was by means of a compressed sponge introduced from time to time within the anus. Patients fear the knife, and willingly resort to salves for relief, and in this respect history repeats itself for the past two hundred years. Louis XIV., King of France, was so unfortunate as to be afflicted with a fistula. His medical attendant seems to have been a real practical surgeon, versed well in surgical pathology, as well as therapeutics. He diagnosticated the ailment of the King, and informed His Royal Highness that the cure could be accomplished only through a surgical operation. The King was very shy of being cut, and as various methods of treatment had been proposed for him, “without any resort to the knife,” he was shrewd enough to object to have them tried upon his own Royal person, until he should have seen their good effects upon others; and he accordingly ordered a number of his subjects suffering from fistula to be treated in accordance with the different plans which had been suggested. Among other cures, the mineral springs of Barége, as also the waters of Bourbon were proposed, and to these

* *Fistula in Ano, and Hemorrhoidal Affections*, London, 1873.

† *Boston Medical and Surgical Journal*, vol. 99, p. 657.

springs he sent the patients accompanied by a physician, whose province it was to observe the results of the drinking of, and the bathing in the waters, as well as the injecting of the same waters into the fistulæ. After some months, these invalids were all brought back to Paris, and the fistulæ were nearly as bad as when they went thither. Next, chambers or wards were fitted up at royal expense, and the patients with fistulæ were there carefully treated in accordance with the various methods of cure of pretenders, who recommended ointments, salves and solutions for injecting, as likewise internal injections. A whole year was spent in this way in experimenting, but not one of the patients was cured by any of these means. At last the king gave in to his surgeon, Mons. Felix, who operated upon him Nov. 21st, 1687, making the identical operation of the present day—freely opening the sinus into the gut, and cutting through the sphincter. The operation was a success, and the king was, in a short time, perfectly cured. I have taken the liberty of calling attention to the above case, which may be of historical interest to the surgeon of the present day, and may be regarded as classical.

Fistulæ of the rectum may occur in the young or old, and may accidentally happen to those leading a pure and regular life; but high livers and those who are intemperate are especially liable to them.

The following case came accidentally under the attention of the writer: In August last, while on a visit at Le Roy, N. Y., I was consulted by Miss ———, a young lady æt. 26.

She informed me that some 18 months previously, from the effects of a fall, she had suffered from an abscess in the ischio-rectal region, which had finally terminated in a double fistula. For this affection she had been to a "Cure" for five months, and was there treated by the lady physician in charge, who had improved her general health very much, and had endeavored to heal the fistulæ by various injections, and other applications, but without effect. Upon examining the case, I found two fistulous openings upon each side of the posterior commissure of the vagina, extending into the rectum. I introduced a probe into one opening, and found a fistulous tract terminating in the rectum, at a distance of over two and one-half inches above the anus. I then introduced

a second probe into the opposite opening, and succeeded in passing it through the tract of the same opening also into the rectum; with one index finger in the rectum, I made the end of each probe impinge upon it. Here then was a double fistula with one common opening in the rectum. After this diagnosis, I announced to the young lady's mother that her daughter's ailment could be easily relieved by a surgical operation, the nature of which I explained to her.

Several objections were made to the operation, and I was solicited to try and cure it by other means.

The first objection was, that such an operation was not approved of by her last medical advisor, who proposed to cure the fistulæ by placing the patient under the influence of ether, and then forcibly distending the sphincter, to paralyze the same, and afterwards to treat the fistulous tracts by injections, and thereby hoped ultimately to affect a cure.

2d. Her last medical advisor regarded the patient as "a bad subject for the healing process, should any surgical cutting be done."

3d. The patient herself objected to the knife. As I had firmly stated that no cure could follow any procedure whatever, short of a radical operation, and as the patient was a near relative of mine, and therefore feelings of delicacy were involved in the matter, I proposed that the young lady and her mother should accompany me to Buffalo, to consult Dr. J. F. Miner.

They accordingly did this, and Dr. Miner was consulted Sept. 23d, and he quite agreed with me in the diagnosis, and approved of the treatment as above proposed;—in other words Prof. M. said, "it was a case to be treated in accordance with the principles and practices of surgery," that the pyogenic surface of the fistulous tracts should be freely and completely exposed, and incision into the common opening in the rectum, and the sphincter divided. As the patient had at all hazards objected to the knife, as a *substitute*, I suggested to Dr. Miner the feasibility of operating by ligature, to which he assented. The principle of this operation by ligature is as old as Hippocrates, who used the *seton* in fistula. For improvements in the use of the ligature, we are indebted to

Dr. Dittel, of Vienna, who first proposed the *elastic ligature*, which is made of india-rubber, the size of a whip-cord. The end of the ligature is split with a pair of seissors; then it is threaded in the eye of a good sized silver probe; then the probe, armed with the ligature, is introduced into the fistula and pushed into the opening in the rectum, and brought out through the anus; then the two ends are passed through a little leaden ring (not unlike to a good sized buck-shot with a hole through it), and stretched to its maximum tension, then the ring is crushed or clamped with strong forceps or pincers in such a wise, that the fistula is included or strangulated within an elastic noose, and this tension steadily maintained until the ligature in time performs the part of a knife by cutting through the sphincter, when it is discharged. This new method by the elastic ligature has not only the sanction of Dittel the inventor, but of Allingham and Sir Henry Thompson.*

Having given my reasons for using this ligature, supported by surgical authorities, I accordingly made trial of it in this case.

I returned to Le Roy with the patient, and, assisted by Dr. R. Williams, proceeded to make the operation, Sept. 26th, 1878. The bowels were evacuated early in the day with an enema, and Dr. Williams administered to her, by inhalation, a mixture of three parts of ether to one of chloroform; she soon came under its influence, when I introduced an elastic ligature into each sinus, and passed them through the common opening into the gut; the ends of each were then brought through the ring of lead and each one separately clamped, as I have above described. The patient, although delicate and nervous, had no untoward symptoms after the operation, with the exception of a diarrhœa on the fourth day, which soon subsided. One ligature cut through on the eighth day, and the other ligature on the tenth day. The patient was quite comfortable through the whole time of treatment, excepting the slight looseness of the bowels above mentioned, and made a rapid recovery. A little gap or cleft made by the division of the sphincter did not entirely heal for some weeks, but she always had perfect control of her bowels, and at this time, three months after the

* See Braithwaite's Retrospect, Part 69, 1875, page 108 and 179. Also Elastic Ligature in anal fistula. Directions for its Use, by Allingford. *Phila. Med. and Surg. Reporter*, vol. 33, p. 153 and 110.

operation, she is quite well. After the operation I was obliged to return to St. Louis, but left the patient in charge of Dr. R. Williams, a resident practitioner in Le Roy for twenty-five years past, and to whose careful attention the favorable issue of the case is not a little due.

I am quite certain that experienced surgeons will not give up the knife for the elastic ligature, and the writer of this does not wish to be considered as recommending it above the knife; but it certainly has its advantages, and these I shall take the liberty to enumerate.

SUMMARY OF THE ADVANTAGES OF THE ELASTIC LIGATURE.

1. Applicable as a substitute for the knife when patients are delicate, timid, possibly phthisical, and positively decline "to be cut."

2. Appropriate when the opening in the gut is situated unusually high up.

3. Operation followed by no hemorrhage.

4. Patients not necessarily confined to bed after the operation, but may go in the air, and in some instances, even pursue their ordinary avocations.

6. Little suppuration after the operation.

7. Recovery usually rapid.

8. Operation in many cases may be performed at the surgeon's office, and patient get up from the operating chair and go home without discomfort.

Lastly, Dr. Wm. Allingham says: "I do not consider the elastic ligature can ever supplant the knife in the treatment of fistulous sinuses. In complicated cases the knife must be depended upon mainly, but I am of opinion that the india-rubber ligature is valuable in many cases as a substitute, and in others as an auxiliary, to the usually employed method of excision."

————:o:————

ART. III.—Clergyman's Sore Throat—Chronic Follicular Pharyngitis. By H. S. DAVIS, M. D., Meriden, Conn.

The pharynx is an irregular funnel-shaped cavity, about four and one-half inches in length. The mucous membrane of the pharynx presents some peculiarities. In the superior portion,

which forms a cuboidal cavity just behind the posterior nares, the membrane is darker and much richer in blood-vessels than in other parts. Its surface is smooth and provided with ciliated, columnar epithelium, like that which covers the membrane of the posterior nares. Laterally, below the level of the opening of the Eustachian tubes, and posteriorly, the mucous membrane abruptly changes its character. The epithelial covering is here composed of cells of the pavement variety, similar to those which cover the mucous membrane of the œsophagus. The membrane is also paler and less rich in blood-vessels. It is provided with papillæ, some of which are simple, conical elevations, while others present from two to six conical processes with a single base. These papillæ are rather thinly distributed over all of that portion of the mucous surface which is covered with pavement epithelium. The papillæ, unlike the follicles in other parts of the respiratory tract, are not imbedded in the sub-mucous tissue, but lie upon it, and just beneath the mucous membrane, the ducts communicating with the surface, and distributing a blood secretion, of light consistency and transparent color. The mucous membrane of the pharynx is exceedingly prone to disease and is the seat of important pathological conditions, some of which prove very intractable to the physician. Most of the inflammatory affections of the throat commence in the pharynx, and although the pharynx is directly continuous with the œsophagus, the extension of the inflammatory process is less apt to proceed along that tube than to extend into the respiratory tract. When we consider the trials to which the pharynx is subjected, it is a matter of surprise that diseased action is not found there more frequently.

The direct action of cold, the frequent irritation of the mucous membrane by the inhalation of poisonous and irritating particles in the atmosphere under certain conditions, smoke from tobacco, the promiscuous use of hot and cold food and drink at the same meal, the use of ice water after a warm dinner; all of these have a direct influence in producing the various morbid condition known as erythematous sore throat, phlegmonous sore throat, or tonsillitis, or quinsy, ulcerated sore throat, membranous sore throat, etc. One of the most insidious and obstinate chronic diseases of

the pharynx is that known as follicular pharyngitis or more commonly known as clergyman's sore throat, although it is by no means confined to members of that profession, nor even to public speakers. It makes its appearance in individuals of all classes, without distinction of temperament, social position or employment. There is no doubt however that the clerical profession, or public speakers, or persons who have their vocal organs in constant use, may confirm and prolong the disease when it exists. It occasions more inconvenience to clergymen than to others, for the necessity which they are under of using the voice in public speaking, and they are apt to be apprehensive lest it may incapacitate them for public speaking. Although some cases may begin as a sub-acute affection, yet it is highly probable that in the majority of instances the cases are of a chronic character from beginning to end. If we examine the pharynx of a patient suffering from chronic follicular pharyngitis we find the pharyngeal membrane thickly studded with small projections or granulations, sometimes circular in outline, sometimes irregular, varying in size from that of a pin-head to that of a small pea. They may be isolated or in clusters, and more apt to be situated at the lateral angles of the pharynx. When, from any cause, these projections become the subject of inflammatory action, they increase in size, owing to the swollen condition of their mouths, which present an outlet to these secretions. This secretion very often assumes a cheesy character bearing a resemblance to tubercular formations, and this gave rise to the term "tubercular pharyngitis" used by Green,* Gibb, and the older pathologists. My own experience shows that four-fifths of all cases of throat trouble presents these granulations either on the pharynx, velum, pillars of the fauces, tonsils, or upon all these parts. They may accompany all sorts of diathesis—syphilitic, serofulous or tuberculous. Therefore it is not in the granular condition that we should look for the explanation of all the morbid phenomena which show themselves in follicular pharyngitis. There is something that lies back of this symptom, and that is a want of nerve force, and this explains why, in some cases of the disease, of long standing, one side of the posterior

*Diseases of the Air Passages, N. Y., 1858.

pharynx, may be seen to be tumid, while the other side is contracted, and other cases are so thickened and hyperemic as to apparently shut off air and food, and in other cases the sub-mucous and muscular layers are both partially absorbed, while the laryngeal structures are not affected, yet we often find the voice affected in this disease merely from an extension of the nervous influence of the pneumogastric nerve. No doubt but that the inhalation of irritant vapor, or exhalations, or the constant use of the voice may confirm and prolong this disease when it exists, but much more essential to the primary production or development of peculiar disease is the diathetic or constitutional tendency which is usually, if not always, present in such cases. If the granulations are closely examined, there will be found a narrow line of redness about the base, the mucous membrane will be found congested, and the parts presenting a dry appearance, with here and there small pledgets of inspissated mucus adhering to the surface. In this form of disease there is no rawness; the loss of epithelium is merely apparent, and the vesicles can all be wiped off with a soft sponge, showing the membranes beneath to be in a healthy condition. At this stage of the disease the symptoms appear, as a rule, very gradually. At first the person so affected is conscious of a sensation of dryness in the fauces, which sooner or later gives place to a feeling as if something had lodged in the throat. The presence of adhesive mucus excites efforts of hawking and coughing. A laryngoscopic examination will show a slight congestion of the vocal cords, if the voice is used to any extent. As the disease progresses, the follicles become still more enlarged, a more viscid mucus adheres to the parts, and in greater quantity. Sometimes these follicles will present the appearance of inflamed pustules on the point of bursting. Laryngoscopic examination will show that the nasal aspect of the palate, and perhaps the posterior nares, are also invaded by the diseased action. The symptoms of hoarseness, expectoration and dysphagia will be increased in severity, cough will be present in a greater or less degree, and the larynx will be found to exhibit the evidence of chronic inflammation of the mucous membrane. Still later the disease in the inflamed follicles ulcerate, and the secretions become purulent,

and sometimes bloody, from rupture of superficial blood-vessels. If the disease is allowed to progress unrestrained, the larynx is sure to become involved eventually, and may then become more seriously affected than the pharynx was in the first instance. There is either great difficulty or inability to swallow. Impairment of hearing is at times an attendant upon chronic follicular pharyngitis, and the impairment is sometimes of a permanent character.* Patients complain of debility, and of a want of their accustomed energy; they are generally depressed in spirits, or have forebodings of loss of health; they are apt to fancy the existence of some serious disease, especially pulmonary consumption, and it is sometimes difficult to convince them that the latter disease does not exist. Patients with this disease rarely become tuberculous, in fact its existence is, to some extent, evidence of the non-existence of tuberculosis. The treatment of chronic follicular pharyngitis is not always as successful as one would expect, for the reason that the patient will rarely submit to the necessary treatment, and avoid exposure to the causes of the affection. It is usually only when totally incapacitated for work that patients will submit to treatment, and then the mental depression under which they labor, places a fresh impediment in the path of cure. Flint† regards topical application of little or no value, and yet local treatment seems, in most cases, absolutely necessary to effect a cure of the local trouble. Sometimes the effects are very prompt, and again they are very slow. The most efficacious treatment of chronic follicular pharyngitis is, no doubt, the topical application of nitrate of silver, although this method is much derided by some authors. Cohen‡ thinks it is more efficacious than any other treatment. An acute inflammation has a tendency to get well, whereas a chronic inflammation has no such tendency. The object is, to substitute an acute for a chronic inflammation, and the inflammation caused by nitrate of silver recovers much more quickly than that caused by most of the other caustics. The pharynx should be washed out by syringe or mop before the nitrate of silver is applied. This detaches the clumps of mucus adhering to the mucous

* Roosa's Treatise on Disease of the Ear, p. 284.

† Principles and Practice of Medicine.

‡ Diseases of the Throat, p. 171.

membrane, and provides a clean surface for the application. The nitrate of silver should then be applied on a small piece of soft sponge, held in a pair of forceps, and the hypertrophied follicles and the ulcerated spots should be touched, one after the other, gently, carefully and effectually. A solution varying from forty to sixty grains to the ounce may be used in the first instance, and this can be increased to four hundred and eighty grains to the ounce, which represents a saturated solution, when it is desired to produce destruction of tissue. When nitrate of silver is brought in contact with a mucous surface, it coagulates the mucus; and if applied in excess, it unites chemically with the tissues of the membranes beneath, forming a more or less thick crust. If the nitrate be applied to an actively secreting mucous membrane, it first irritates the distended blood-vessels and capillaries, and also stimulates their contractility, so that they unload themselves and cause an onward flow of blood accumulated in them. Browne* recommends the vessels be divided and obliterated by means of a fine galvano-cautery point, when the follicle will be seen within a very short time to shrivel up and disappear. When the galvano-cautery is not available, the same end may be obtained by incising the vein transversely with a long, pointed knife or lancet, and then applying a fine caustic point, with a little pressure to the cut spot. He does not agree with those laryngologists who advise destruction of granules by caustic pastes,† cautery wires,‡ or by blunt cautery knives,§ truly remarking that such plans only treat an effect, and cannot remove the cause. Chloride of zinc, iodide of zinc, sulphate of zinc, sulphate of copper, and many other remedies have been proposed as substitutes for nitrate of silver, and they do good service when for any reason the nitrate cannot be used. The chloride of zinc has no action except on ulcerated or eroded parts, and leaves quite intact those still covered by epithelium. This is a fact easily seen when the neck of the uterus is cauterized with that solution. In my own hands I have found the following application of good service :

℞ Tinct. Iodinii,
Glycerinæ, aa ℥ss,
Balsam Fir, ℥iiss. M.

*The Throat and its Diseases. Phil. 1878.

†Mackenzie.

‡Michel. Diseases of the Nasal Cavity and Vault of the Pharynx. Detroit, 1877.

§Reisenfeld.

Apply to the irritated or ulcerated parts once daily, with a camel-hair brush. This preparation diffuses itself rapidly over the fauces, soothing the irritation and clearing the throat by free expectoration. Another good application is :

℞ Hyd. Bi-chlor. gr. viii,
Ammon. Muriatis, gr. xx,
Glycerine,
Aquæ rosæum, aa. ℥ss. M.

To be applied as above, though greater caution is required against swallowing any of the mixture. It is my practice to examine every case of pharyngitis presented to my notice with the laryngoscope. Very frequently I find the posterior surface of the half-arches, and the part of the pharynx covered by them involved in the disease. In such cases we may recommend inhalation of concentrated solution of alum and tannin, twenty grains of the former and ten of the latter, to an ounce of distilled water. Gargles do but very little good, but when advisable, the following is a very good one :

℞ Hydrate Canadensis, ℥i,
Tinct. Myrrh, ℥ii,
Aquæ, ℥xiii. M.

For the pains and local annoyance, lozenges containing opium, hyoseyamus, conium, lactucarium, etc., or ehlorate of potassa, bromide of potassium, muriate of ammonia, and the like, may be allowed to dissolve in the mouth from time to time. Chocolate forms a good medium for the lozenge. Electricity applied to the spine and over the pneumogastric nerve has been used with good effect.* Mere local treatment cannot cure chronic follicular pharyngitis. A proper combination of local and general treatment is essential in order to accomplish this result. Dr. Robinson† recommends that shell-fish, cheese, salt meat, spices, and all substances which have an irritating action upon the skin should be avoided. Tobacco and alcoholic stimulants, even in moderate quantities should not be used. Relaxation, recreation, and outdoor life are of great assistance in the treatment of this disease.

*Beverly. Ohio Medical and Surgical Journal. Oct. 1877.

†American Journal of Medical Science, Jan. 1876, p. 86.

ERRATA.

On page 302, Art. III, for *Volicular* read *Follicular*.

Counter-irritation externally to the nape of the neck, or in front of the larynx is of use in some cases. The functions of the skin, bowels and other organs must be maintained in as warm a condition as possible, by attention to cleanliness, clothing, diet and temperature.

————:o:————

ART. IV.—Suits against Surgeons. By GEO. M. BLAKE, M. D., Dansville, N. Y.

Suits against surgeons for alleged want of skill or negligence are becoming of more and more frequent occurrence. There is a tendency at the present time to impose upon this class of professional men perilous obligations, beyond the requirements of the law. It is the theory of our law to submit the decision of all questions of fact to a jury, and while the court may lay down in this class of cases, as in others, for the guidance of the jury, the legal principles bearing upon them, there is always left for the jury the question of whether the surgeon did or did not possess reasonable skill, or did or did not exercise that skill in the particular case, and the jury, aided by the plaintiff's witnesses, who are generally possessed of remarkably acute hindsight as to what ought to have been done, almost invariably judge the surgeon by the result in the particular case, without reference to anything else. So that there is as much truth as satire in the saying of a witty Frenchman that "A surgeon was an unfortunate gentleman, who was expected to perform a miracle or so, daily." Add to this tendency of a jury to judge by the event the fact that the intelligent classes of our communities shun jury duty, and that juries are come to be regarded, with some showing of truth, as made up of the ignorant and prejudiced, and it will readily be seen that though the surgeon is tried by a jury of his political peers, he is also damnified by a jury utterly unfit to decide this or any other class of cases wherein questions of science are mooted. That a surgeon who maltreats a case submitted to his hands for cure, should pay for the consequences of his ignorance, and so far as money can do it, should indemnify his injured patient, is no more than just, but it is notorious that where one case of this kind arises, there are ten where the surgeon has not been at fault at all, where, though

his treatment may not have resulted in cure, he still ought not to be subjected to the annoyance of defending a suit. The causes for the multiplicity of these cases are several. The plaintiff is under no obligation to secure the costs in case of his defeat, and should he prove a pauper, as many of them are, the surgeon is robbed of just so much time, cost and anxiety as the case produces, and be his defence and justification ever so complete, he has no redress. These cases brought for pauper clients by unscrupulous attorneys on speculation, make up the majority of malpractice suits. Another operative cause tending to increase their number, is the well understood jealousy of surgeons one for another, and of those of one school for those of another, of Homœopath for Allopath, and vice versa. Then, too, a malpractice suit is such an easy and cheap way for a man who fancies himself aggrieved, to get his revenge upon a surgeon, that suits cooked up out of spite, are not unknown. It is not my intention, however, to go into the causes of these suits further than to show how peculiarly liable surgeons are to unjust suits for alleged malpractice, and unless they keep standing witnesses over the patient all the time to see that he does not molest or tamper with the bandages or the like, and so produce the very result on which he grounds his suit, how impossible it is to prove to the satisfaction of a jury that the surgeon was not at fault. What I do desire, is to aggregate, so far as I may, the rules of law settled by the authorities, which especially bear upon this subject. A surgeon may be at fault in one of two ways—he may wholly lack the required skill, or, having that skill, he may negligently fail to exercise it. Usually both faults are charged in the complaint, and in practice it is somewhat difficult to separate them. The degree of skill which the law requires, is the same, neither more nor less, than it demands of attorneys and other men who hold themselves out to the public as possessed of peculiar skill or knowledge. It demands that amount of skill which is possessed by the average ordinary professor or practitioner of that art or science.

“The duties and responsibilities of all these classes, as those of lawyers and physicians are governed by the same general rules.”
(1 Bour. Inst. 403.)

“The person undertaking to act as a surgeon engages that he possesses that reasonable degree of learning and skill which is ordinarily possessed by the professor of the same art or science, and which is ordinarily regarded by the community, and by those conversant with the employment, as necessary to qualify him to engage in such business.” (Per Allen, J., in *Carpenter v. Blake*, N. Y. Ct. of App’s, partially reported, 50 N. Y. 696.)

“He is not responsible for want of success unless it is proved to result from want of ordinary skill, or want of ordinary care and attention. He is not presumed to engage for extraordinary skill, or for extraordinary diligence.” (Per Bell, J., *Leighton v. Sargent*, 7 Fost. N. H. 460.) (Story Bailments, § 433.) (L. I. Brougham, in *Purves v. Laudell*, 12 Clark & Finnelly 91.) (Sherman & Redfield, Negligence, § 434 and note 4.)

Some of the authorities above cited are in the cases of suits against attorneys, but certainly if there is any difference, it must be in the application of the most favorable rules to the duties of surgeons. They have usually no opportunity to consult books, and are often compelled to act suddenly with little or no time for reflection, and amidst great excitement and distress. The condition of their patients is often very dissimilar, one tough, robust and strong nerved, another an hysterical female, one surrounded with intelligent aid, and nurses to understand and carry into effect the directions of the surgeon, the other ignorant, careless and deceitful, who would take off his bandages if they pained him, to replace them only when he expected the doctor’s visit. In all these cases the doctor must use his own best judgment as to the means and appliances best fitted, not only to the injury, but also to the subject and choose which of the two or more methods is the best under all the surroundings for the often impatient patient.

“The standard of skill may vary according to circumstances, and may be different even in the same state or country. In country towns and unsettled portions of the country remote from cities, physicians, though well informed in theory, are but seldom called upon to perform difficult operations in surgery, and do not enjoy the opportunities of daily observation and practice which large cities afford. It would be unreasonable to exact of one in

such circumstances that high degree of skill which an extensive and constant practice in hospitals or large cities would imply a physician to be possessed of." (Sherman & Redfield, Negligence, § 436.)

Where want of skill is made one of the material allegations of the complaint, evidence of the defendant's skill, education, general good reputation and standing in his profession is admissible in rebuttal of the allegations. "Where the issue is made upon the possession of skill, not merely the use of it, the defendant may introduce evidence of his general skill, and where there is much doubt as to the skillfulness of his treatment of the particular case, evidence of his general skill will be *material upon all the issues* of the cause, for if he had skill it is natural to suppose he used it." (McCaudles v. McWha, 25 Pa. State, 95.)

"Where the declaration against a surgeon alleged that the plaintiff sustained injury from the want of skill and mere neglect of the surgeon in the treatment of a fracture, evidence that the defendant had received a good surgical and medical education, and was a regularly educated and skillful surgeon, was admissible because it tended to disprove a material allegation of the declaration." (Per Bell, J. Supra.)

"It was manifest error, and prejudicial to the defendant to charge that it was immaterial whether the defendant was or was not reputed to be, or was or not a skillful surgeon. This was one of the material issues of the case. If he had not competent skill he was censurable for holding himself out to the public as possessed of that skill, and the jury would properly hold him strictly accountable for the consequences of his acts. He would not be entitled to the benefits which would enure to the skillful surgeon from an error of judgment or mistake in the means and appliances at command of the expert. Not having skill or experience he could have no reasons, and could exercise no discretion or choose between different methods, and having adopted a process which was not successful to the exclusion of one which might and probably would prove successful, he cannot fall back for protection upon that which serve as a shield to the skilled operator. That having skill and knowledge to choose between two or more

courses of treatment in the exercise of his judgment, and with knowledge of all, he honestly and fairly chose the one to the exclusion of the other." (Opinion. Allen, J. Supra.)

Any evidence then calculated to repel the inference of ignorance and unskillfulness—to show that the surgeon is a man of suitable education and acquirements for the safe practice of his profession, is competent and proper. Such evidence changes the whole position of a case, for if a jury is satisfied that the surgeon had proper knowledge and skill, the only question then left to them is, whether he adopted the course of his treatment from mistake, mere error of judgment, for which he is not liable, or from negligence and want of ordinary care which constitutes the second ground of the surgeons liability.

"The law implies an undertaking on the part of every medical practitioner, that he will use ordinary care and skill in his practice, and will hold him liable for *gross* carelessness or unskillfulness." (Bowman v. Wood, 1 Green, Iowa, 441.)

"A surgeon undertakes that he will use reasonable and ordinary care and diligence in the execution of his skill and the application of his knowledge to accomplish the purpose for which he is employed." (Allen, J., Supra.)

As the law requires only ordinary skill, so it only requires ordinary care and diligence, but upon this point of ordinary care it might be made a question whether a medical man is not really bound to apply extraordinary care because his charge relates to the lives and health of his patients, which are of unequalled importance and interest to them. But there is no pretense that the physician is bound to any other rule in this respect than that which governs all classes of men engaged in works and services requiring skill—the rule of ordinary care and diligence. "He is not responsible for errors of judgment or mere mistakes in matters of reasonable doubt and uncertainty. * * * * To charge a physician or surgeon with damages, on the ground of unskillful or negligent treatment of his patients case, it is never enough to show that he has not treated his patient in that mode, nor used those measures which, in the opinion of others, even medical men, the case required, because such evidence tends to prove errors of judgment,

for which the defendant is not responsible as much, as the want of reasonable care and skill for which he may be responsible alone, it is not evidence of the latter, and therefore the party must go farther and prove by other evidence that the defendant assumed the character and undertook to act as a physician without the education, knowledge and skill which entitled him to act in that capacity. * * * * They should be chargeable with the consequences of mere error only, where such errors could not have arisen, except from want of reasonable skill or diligence." (Bell, J., *Supra.*)

A surgeon engages "To use his best judgment in the application of his skill, and the exertion of his diligence." (Allen, J., *Supra.*)

The surgeon is called upon to use his own best judgment, not that of any authority, hence if he believes some course not set down in the books, will be of benefit to his patient in a particular case, and has good reason for the faith that is in him, he is at liberty to use it, as he is also to choose when the authorities differ, or set forth several modes of treatment. But if the settled practice and surgical authority allow but one course of treatment in a case, then any material departure from such course might properly be regarded as the result of want of care and attention, and such departure, if made in a case which is not doubtful or uncertain, is made at the peril of the surgeon. (*Patten v. Wiggan*, 51 Maine, 594. *Ritchey v. West*, 23 Illinois, 385; *Bowman vs Wood*, 1 Green, Iowa, 441; *Landon v. Humphrey*, 9 Connecticut, 209.

The party seeking to charge the surgeon with want of skill or want of care, or failure to exercise his best judgment, holds the affirmative, and must establish the surgeon's default by satisfactory proof; the presumption is in his favor. (Sherman & Redfield, *Negligence*, § 442.)

"Where the plaintiff relies upon non-recovery, or slow recovery, as some evidence of the surgeons unskillfulness or neglect, the defendant is at liberty to prove anything tending to show that the fault was in the patient, not in the treatment."

(*McCandles v. McWha*, *Supra*), in which case defendant was allowed to show that previous intemperate habits of patient ag-

gravated an accidental injury. The question has been raised as to how long a surgeon was bound to continue in attendance upon his patient in the absence of a special contract, and Sherman & Redfield, in their work on Negligence, lay down a very strict rule. They say a physician has no right to resign charge of a patient before the end of the illness which he undertook to treat. To any one acquainted with the daily exigencies of medical practice, the absurdity of this rule, if it be a rule, is at once manifest. But it seems to be only the dictum of the authors. They support it by no references to decisions by the bench, and it is not the law of New York, as it certainly is not of common sense. Judge Allen, of N. Y., Ct. of Appeals in *Carpenter v. Blake*, gives the rule thus, "A surgeon is not bound, in the absence of a special contract, to attend the patient any longer than the necessities of the case require, and having performed an operation to meet an exigency, he can then withdraw *upon reasonable notice*, leaving the patient to secure other attendants to complete or watch over the cure, and in such case the withdrawing surgeon is only liable for neglect or want of skill up to the time when he committed the case to other hands." The rule in Sherman & Redfield is laid down so strictly because of the parallel instituted between attorneys and surgeons, but on this point the parallel is an unjust one. The employment of attorneys has nothing of the sudden and imperative character of the employment of surgeons, and our common experience teaches that surgeons often, indeed generally in difficult cases, perform the most important operations, and neither give nor expect to give any farther attention to them, and they do this as a matter of right and not of license. Of course they cannot quit in the midst of an operation, or at any time when the case demands their immediate attention, but subject to this limitation I believe the law is as put by Judge Allen, that they are free to cease attendance *upon reasonable notice*, for cannot a patient dismiss a surgeon with or without cause in the absence of agreement, and if one party is not bound, ought not the other be free also? The rules of law laid down by the authorities, the principal of which I have quoted are just to the surgeon. They ask only that which every member of that large and honorable pro-

fession willingly concedes to be his duty towards those who employ him. The evil is in the imperfections and prejudices of the twelve specimens of human nature in the jury-box, to whom all questions of fact are submitted. The jury system with all its defects, defects which are inherent in humanity itself, is undoubtedly the best and safest mode of trial known, and we must abide by it.

The only remedy apparent by which the evil effects of its prejudices in these cases can be obviated, is for the "Bench" to impress upon the attention of the jury with more than ordinary care and force, the rules of law governing the surgeons liability.

A. A. Mich., January 26th, 1879.

Editorial.

The Commencement in the University of Buffalo.

The exercises of the thirty-third annual Commencement of the Medical Department of the University of Buffalo were held at St. James Hall Tuesday evening February 25th, and was an occasion of great interest.

The annual meeting of the Council was held in the committee room of the Young Men's Association at four o'clock in the afternoon, the following members being present: The Hon. O. H. Marshall, President; Dr. James P. White, Dr. Thomas F. Rochester, Dr. Julius F. Miner, Dr. George B. Hayes, the Hon. Mayor Schen, the Hon. E. G. Spaulding, the Hon. James O. Putnam, Mr. John Wilkeson, Mr. George S. Hazard, Mr. John D. Shepard, Mr. David Gray and Mr. James N. Matthews, Secretary.

Dr. White, as President of the Faculty reported that the Faculty and Curators had made the proper examinations and unanimously recommended that the degree in Doctor in Medicine be conferred upon each of the following gentlemen:

1. Edwin C. Taylor, Breeseport, N. Y. 2. W. H. Addington, Buffalo, N. Y. 3. Charles Albert Wall, Buffalo, N. Y. 4. Andrew McKenny, Aylmer, Ont.
5. L. E. Ellis, Brocton, N. Y. 6. Frederick Jaekle, Dunkirk, N. Y. 7. Isaac Nelson Wright, Honeoye, N. Y. 8. Joseph B. Hatch, Rochester, N. Y. 9. Charles W. Shaver, Buffalo, N. Y. 10. W. L. Dickinson, West Webster, N. Y. 11. John B. La Mothe, Schenectady, N. Y. 12. Arthur A. Kendall, Corning, N. Y. 13. Chester Howard, Andover, N. Y. 14. Samuel E. Ballard, Sacketts Harbor, N. Y. 15. Adelbert J. Clark, Wilson, N. Y. 16. F. F. Greene, Cazenovia, N. Y. 17. Floyd B. Parke, Breeseport, N. Y. 18.

Frank H. Bartlett, Olean, N. Y. 19. Herbert Paris Sheldon, Perry, N. Y. 20. Jacob E. K. Morris, Olcan, N. Y. 21. Robert W. Eastman, Owego, N. Y. 22. Charles Sumner Gere, Chemung, N. Y. 23. James Theophilus Stokes, Yates, N. Y. 24. Emory John Drury, Minetto, N. Y. 25. John H. Wiggins, Jamestown, N. Y. 26. Adelbert Eugene Crowell, Brookfield, N. Y. 27. Benj. F. Rogers, Albion, N. Y. 28. J. Watson Brown, Ithaca, N. Y. 29. Denton W. Rudgers, Pavilion, N. Y. 30. Geo. Albert Westfall, Union Centre, N. Y. 31. Tonsley Lewis, Albion, N. Y. 32. Louis A. Bull, Buffalo, N. Y. 33. Henry Proper Stilwell, Mecklenburg, N. Y. 34. Ed. W. Trowbridge, Watertown, N. Y. 35. Eugene Orville Bardwell, Penn Yan, N. Y. 36. Edwin S. Miller, Mayville, N. Y. 37. David M. Bemus, Jamestown, N. Y. 38. Wilfred Hanland Sage, Hinsdale, N. Y. 39. Charles W. Robertson, Ransomville, N. N. 40. W. H. Pitt, Buffalo, N. Y. 41. John H. Thrall, Woodstock, Ont.

By vote of the Council, the honorary degree of Doctor in Medicine was conferred upon Professor Charles Avery Doremus, Ph. D., and Dr. Charles Cary was elected Professor of Anatomy.

The exercises of the evening were opened with prayer by Rev. Dr. Van Bokkelen, after which the President of the Faculty, Prof. Pames P. White, M. D., read the report of the Council of the University, including the list of graduates, and addressed the President of the Council, Hon. O. H. Marshall, as follows:

MR. PRESIDENT—These candidates have shown, by proper certificates, that they have pursued the study of medicine under competent preceptors for the allotted time of three years; that they are of good moral character, and have reached the age of twenty-one years. They have given satisfactory evidence of their attendance upon two full courses of lectures at recognized Medical Colleges, the last course having been at the Medical Department of the University of Buffalo. They have written and submitted acceptable theses; passed examinations before the Faculty and Curators in all the departments taught in this college; and the Council of the University has formally directed that they receive the Degree of Doctor in Medicine. I therefore in behalf of the Faculty and Curators present them to you.

He also stated that Frederick Peterson had passed an excellent examination, but owing to the fact that he was not of age, a diploma could not be legally granted; and further that the thesis of W. H. Pitt upon "Spectrum analysis of the blood" deserved mention, and should be published.

The diplomas were then presented to the graduates by President Marshall, after which the charge to the graduates was delivered by Hon. E. Carlton Sprague, and was a scholarly, thoughtful, suggestive address, which was thoroughly appreciated by the Doctors, and by an intelligent audience, and was warmly received. Following this came the address before the Alumni Association delivered by Dr. Judson B. Andrews, Assistant Physician in the State Asylum for the Insane at Utica, upon the "Early Indications of insanity," which we shall publish in our next Journal.

MEETING OF THE ALUMNI.

The fifth annual meeting of the Alumni Association of the Medical Department of the University of Buffalo opened shortly before eleven o'clock, at the College building.

The Association was called to order by Dr. W. C. Phelps, who introduced the President-elect, Dr. M. Baker of Warsaw, who returned his thanks for the honor conferred upon him in his election, and then introduced Prof. James P. White, M. D., who, in consequence of the inability of Prof. Moore to reach the city, delivered the address of welcome.

On motion of Dr. Briggs, the following committees were appointed:

On President's Address—Doctors J. S. Smith and W. C. Phelps.

Nomination of Officers—Doctors D. W. Harrington, W. H. Slacer and A. R. Davidson.

At three o'clock the Alumni again convened, and after listening to the reading of two very interesting papers and the address of Dr. Baker, the retiring President, the Association proceeded to elect the following officers for the ensuing year:

President—C. H. Richmond, Livonia, N. Y.

First Vice President—Wm. C. Phelps, Buffalo.

Second Vice President—T. M. Johnson, Buffalo.

Third Vice President—Eugene Smith, Detroit.

Fourth Vice President—Henry Lapp, Clarence.

Fifth Vice President—R. Y. Charles, Rushford, N. Y.

Secretary—A. M. Barker, Buffalo.

Trustee—Prof. James P. White, Buffalo.

Executive Committee—A. H. Briggs, W. H. Slacer, S. G. Dorr, James P. White, *ex officio*, and C. H. Richmond, *ex officio*.

Dr. J. S. Trowbridge, of this city, Dr. J. B. Andrews, of Utica, and Dr. H. C. Tompkins, of Tompkinsville, N. Y., were elected honorary members.

Dr. Hall then gave notice that at the next annual meeting he should present an amendment to the constitution, providing that the meetings of the Association be held once in two years.

Dr. Sloan offered an amendment to the constitution, providing that the election of officers be by ballot.

Under the rule, this was laid over for one year.

There being no further business, the Association adjourned.

At the conclusion of the exercises in St. James Hall, the Faculty, Curators and Alumni, with their friends, adjourned to the Tift House, where the Annual Alumni Banquet was spread.

—:o:—

Original Department of this Number.

On account of the liberality of our friends in original contributions, we have excluded the usual miscellaneous selections, and offer our readers an entirely Original Journal. Book reviews are also from necessity postponed for next issue, and mention of Pamphlets Received.

CALL FOR A CONVENTION of all American Medical Colleges, to be held in the city of Atlanta, Ga., beginning at 10 A. M., Friday, May 2d, 1879. In general terms, the *object* of the convention is to adopt some "some uniform system of instruction more in harmony with the requirements of the age." Among the questions for discussion and decision may be mentioned, "Shall all the colleges require attendance upon three regular courses of lectures during three separate years ere admitting students to become candidates for the degree of M. D.?" Is any uniform system possible in this or other things? If so, to what extent is it possible or even desirable at the present time? Each doctor in the land doubtless has in mind an ideal medical college system. But this convention cannot act upon idealities; it can only act upon that which is practicable to all honest efficient medical schools.

————:O:————

Books Reviewed.

Principles and Practice of Surgery. By JOHN ASHURST, M. D., Professor of Clinical Surgery in the University of Pennsylvania; Surgeon to the Episcopal Hospital and the Children's Hospital; Consulting Surgeon to St. Christopher's Hospital of the Good Shepherd. *Second edition*, enlarged and thoroughly revised. With five hundred and forty-two illustrations. Philadelphia: Henry C. Lee. 1878.

This work furnishes in a condensed and concise manner description of the present most approved methods of surgical practice. The whole subject matter of surgery is presented in its pages in form to exactly meet the requirements of general practitioners who are engaged in both medical and surgical practice. It is a book of ready reference for general use among practitioners, and at the same time a standard authority of great value. The student in medicine and surgery will find it the most satisfactory text-book on all surgical subjects, and to him it is of special value, having been brought up to contain and explain all recent observations and improvements in surgical science.

The arrangement of this volume is similar to the first edition, though it has been carefully revised and much new material added. In its present revised and illustrated edition it fully meets the requirements of practitioners generally, while medical students everywhere will appreciate its completeness and exact adaptation to their wants. Space prevents expression of our full estimate of its merits. We can only briefly indicate its general merits, and advise physicians and students that it is concise, includes the whole field, is beautifully illustrated, and in all respects merits first place as surgical text-book.

The American Quarterly Microscopical Journal. Edited by ROMYN HITCHCOCK, and published by Hitchcock and Walls, 150 Nassau Street, New York.

The first number of this work is before us, and we consider it well calculated to fill a long felt vacancy among the Microscopic workers of America. Similar Journals have been in existence in Europe for many years, and have been looked for and perused with great eagerness on this side the Atlantic. We are pleased therefore to see so good a specimen of American enterprise. It bids fair to be at least equal to those of a similar character on the other side. The paper and typography are excellent, and the illustrations are both numerous and finely executed.

The contributors are among the most distinguished microscopic scientists of the old and new world.

We notice an article on the Sting of the Honey Bee (*Apis Mellifica*) by Prof. J. D. Hyatt, and an article by Prof. H. L. Smith of Hobart College, on New Diatoms, some of them found in our own Niagara water. Many other valuable contributions fill its pages, to which is appended Reports of the Microscopic Convention, held at Indianapolis last August. Also the Transactions of the Microscopical Society of New York.

From a list of forthcoming articles, we notice one by Prof. I. N. Danforth, entitled "A Typical case of Tubercular Meningitis," with steel plates. Also one on "The Microscopic Character of Natural, and Artificial Butter," by the Editor; and "Observations on the Structure of Ophioglossum" (with plate) by Prof. Mark Harrington.

Books Received.

A Monograph on the Treatment of Diphtheria. By William C. Reiter, A. M., M. D.; Philadelphia, J. B. Lippincott & Co., pp. 47.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M. D., London. Philadelphia: Henry C. Lea; Buffalo, T. H. Butler, pp. 323.

A Tabular Handbook of Auscultation and Percussion. By Herbert C. Clapp, A. M., M. D.; Boston, Houghton, Osgood & Co.; Buffalo, Peter Paul & Brother, pp. 97, price \$1.50.

Medical Chemistry, Including the Outlines of Organic and Physiological Chemistry. By C. Gilbert Wheeler, Prof. of Chemistry in the University of Chicago; Philadelphia, Lindsay & Blakiston; Chicago, S. J. Wheeler; Buffalo, Theo. H. Butler, pp. 409, price \$3.00.

A Manual for the Practice of Surgery. By Thomas Bryant, F. R. C. S., with six hundred and seventy-two illustrations; Philadelphia, Henry C. Lea; Buffalo, Theo. H. Butler, pp. 932.

Index to Original Communications in the Medical Journals of the United States and Canada, for 1877. Compiled by Wm. D. Chapin, New York, pp. 48, price \$1.00.

Excerpta from the Annual Report to the Board of Health for 1878 By Joseph Holt, M. D., Sanitary Inspector of the Fourth District New Orleans.

Diphtheria and its Treatment. By Chas. H. S. Davis, M. D., Meriden, Conn. Electricity in its Relations to Medicine and Surgery. By A. D. Rockwell, M. D.

First Annual Report of the Board of Health of the city of Buffalo.

A Treatise on the Horse and his Diseases. By B. J. Kendall, M. D.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

APRIL, 1879.

No. 9.

Original Communications.

—:o:—

ART. I.—Progress and Prospects of the Buffalo Medical College.

A speech at the Banquet of the Alumni Association in response to the toast of Alma Mater. By Prof. JAMES P. WHITE, M. D.

Mr. President and Gentlemen of the Alumni Association:

For more than a generation I have used my best energies in the interest of the Buffalo Medical College, and have never refused any call in her name; and it is certainly too late for me to fail her now, especially as her hold upon my affections grows stronger and stronger with each succeeding year.

I am not expected to make a set speech in answer to the compliment you have just extended to this object of our affections; therefore I shall have but little to say on this interesting occasion. As the oldest member of the present faculty, and the only one of the founders now connected with the institution, I cannot refrain from a few words of history of your Alma Mater and of her prospects, and the desires and intentions of the faculty for her preservation and improvement. A little more than a third of a century ago—in the winter of 1845-6—Dr. Austin Flint, with the speaker, aided

by a few such public spirited citizens as Millard Fillmore, N. K. Hall, O. H. Marshall and George R. Babcock, procured a charter for a University in the city of Buffalo, then just emerging from the obscurity of a "western town." We, Dr. F. and myself, were soon joined by Prof. Frank H. Hamilton, of the Geneva Medical School, who subsequently induced his colleagues of that institution to become interested in our project. We, therefore, commenced teaching medicine with able and for the most part experienced lecturers. We assembled a class of sixty or more students in the old Baptist Church, modified to suit our purposes, then standing on the corner of Washington and Seneca streets, on the site of the present Postoffice building; and at commencement, conferred the degree of Doctor in Medicine upon seventeen young men, of whom, those now living are almost "old men." Thus was established the first successful educational institution, above the grade of common school, in western New York, after the Senecas left to us their homes and lands. During the year 1849, unaided by state bounty, which had been extended to all its other colleges, chiefly through the generosity of the citizens of this then small and struggling city, and through the energetic efforts of two or three of the Faculty, the present substantial and convenient edifice was erected and dedicated to the cause of medical education. In parentheses permit me to say, that it behooves the friends of education in this now large and flourishing city, to make strenuous efforts that the remaining departments provided for in the charter, and especially the academic and law, be organized without further delay. We have now more than six times the population, and twenty times the wealth (assessed value), we had when the charter was obtained and the medical department carried into successful operation, and it should be an easy matter to place the whole University in a flourishing condition, capable of teaching all our own young men, as well as those of the neighboring country, to take a wise and intelligent care of all these great interests which soon, in the course of nature, must be committed to their charge. It is fully time that the men of wealth and enterprise should interest themselves more actively in higher education, and provide our city with colleges as well as parks, public school and other municipal buildings. It is

conceded that our future as a nation, and the success of our democratic institutions, depends upon the higher education of the youth of the Republic, and the intelligent interest they shall take in public affairs. We must all do our part, and I am confident that it requires only energy and a proper presentation of the subject to our men of wealth and enterprise, to accomplish this great desideratum for our beautiful city. From the day of graduation of this little band of doctors our success as a school was assured; and if the members of the Faculty were true to themselves it became a question of degree only. (No pun intended.) Although the project was met with bitter opposition and we were surrounded by cheaper schools, our progress has been steadily "onward and upward," and the session just closed has been the most successful in our history. The Buffalo Medical College now has its graduates scattered throughout the entire country and indeed over the whole civilized world, and I am happy to state that they stand well in the profession of their choice, and are men of progress and position in the community, doing honor to Alma Mater. It is our boast, and I take pleasure in here repeating it, that of the numerous applicants for positions in the army and navy during the late war, not a graduate of this college was rejected by any examining board. In my journeying from the Atlantic to the Pacific and the gulf of St. Lawrence to the gulf of Mexico, I have never met one of our representatives that I did not receive a hearty welcome, and that my heart did not go out to him as to no other man. There exists between us a Free Mason like understanding and cordiality, an assured confidence which can be engendered only by the relations which we have held toward each other of teacher and pupil.

Meantime my early associates have fallen by the way or have been transferred to other fields of usefulness, and I am left alone of the originators and first faculty. The vacancies, as they have occurred, have been filled by able and progressive men, and I do not hesitate to state that didactic medicine is as well taught to-day in the University of Buffalo as in any institution in the land. In many things essential to the thorough teaching of medicine this school has taken the lead; here clinical midwifery was first introduced into America, before the graduating class of 1850, and the

neophyte learned his duties at the bedside of the parturient, where alone it is possible to acquire that knowledge. The speaker, in conjunction with the late Bishop Timon, established a lying-in hospital for the permanent use of our pupils, but circumstances have taken it out of our reach for the present. Physiology was first taught experimentally at this school by Dalton more than a quarter of a century since, who with his pupil and successor here, Flint, Jr., and his pupil and successor Mason, are to-day the advanced men of that department in America, and stand at its head. In an effort to extend the length of the lecture course, made many years since, we were among the few who adopted that improvement. We early advocated in the American Medical Association the rejection of certificates of study from irregular practitioners. During discussions in the American Medical Association, on the subject of medical education, it has often been asserted that nothing would so much contribute to the elevation of the standard, as the establishment of some system for examination of candidates for degrees by competent persons not connected with the faculty. This has always been the custom at this College. Believing, at its organization, that the interests of the profession and the public would be promoted by an independent Board of Examiners, who, without fee and without sympathy to bias their judgment, should stand between the Faculty and the students as guardians of the rights and interests of both, we instituted the Board of Curators, selected from the most able and distinguished members of the profession throughout all the neighboring country as well as this city. So far as I am aware no other school has this impartial tribunal, and I think that too great importance can scarce be attached to the utility and merit of the system where, as is the case here, the members are selected from a large area of country and are the most prominent and progressive men, unbiased in judgment and influenced only by a desire for the best interests of all. If, for any reason, the Faculty should recommend unsuitable persons, this Board of Revision would be very likely to detect their failings and throw them out. Besides which, this arrangement serves to make the Faculty more cautious and thorough in their own examinations, knowing, as they do, that their work will be subjected to sharp criticism and

any flaws or weakness detected. Perhaps we may in some measure attribute to this fact the superiority of our classes in the aggregate. These are a few of our "good works" past; now for the future.

We propose to extend the period of instruction from sixteen to twenty weeks, beginning with the next course. In order to bring teacher and pupil into more intimate relations, we assume most cheerfully, the additional labor of giving several evenings in each week to extra instruction in the form of "quiz" or review of the subjects taught in the regular lectures. These reunions or reviews will be informal, free of extra charge, and will give the pupil an opportunity of asking explanation of any points that may not be clear to his own mind; and going over the subjects already placed before him will serve to impress them more firmly on his memory. Who can so well explain the various topics discussed in the lectures, as the professor who has given the subject much thought and special study in his own department? He, also, can best clear up obscure passages in the text books. Not the least recommendation of this system of informal "evenings at home," as they might be called, is the fact that teacher and scholar will be brought to know each other more intimately as they meet without the restraint necessarily observed in the more formal lecture. To those who desire to learn to make practical analyses in chemistry and the use of the microscope, further facilities will be afforded. Professors Doremus and Mason will examine and quiz the class evenings the same as the other professors, according to the above plan, and in addition will receive pupils in the laboratory for special instruction in practical, experimental chemical work, and demonstrations in experimental physiology and microscopic anatomy, which are impossible to exhibit in the lecture room.

Their lectures and experiments before the class will be as full and complete as it is possible to make them, but for this additional work, with the able professors in charge of those two departments, special classes will be made for which they will charge a small fee. These classes in this instruction are entirely voluntary on the part of the pupil, and the facilities are offered only to those who desire more minute teaching than it is possible to obtain at a class lecture.

In my inaugural address as President of the New York State Medical Society in 1870, will be found the following remarks on medical instruction :

“The medical schools of the State, may now be said to be in a highly satisfactory condition. They are yearly increasing their requirements for graduation—though the standard is undoubtedly still too low—demanding constant effort on the part of all men of progress, to carry it still higher.

“The different institutions are yearly enlarging their facilities for instruction, and in laudable competition for increased classes, are affording opportunities, in both didactic and clinical teaching, which the student will scarcely find surpassed in any part of Europe.

“There is, however, one step in a forward direction which should now be taken, and which it seems to me this society can promote by its influence and endorsement.

“I allude to the teaching of Psychological Medicine, as a part of the curriculum of the college course. Is it less important that the diseases of the mind, always involving the brain and nervous system, with their sympathetic connexions and influences, should be properly taught and illustrated with cases, than any of those maladies now deemed essential to be clinically taught, in every institution? The attention of the profession is beginning to receive this direction—some steps have already been taken toward its accomplishment, and I believe the medical mind is thoroughly ripe for action, if commended by this society in suitable and proper terms. Permit me therefore to suggest the appointment of a select committee, to take this matter duly into consideration, and recommend to the society, what action, if any, it should take in its furtherance.”

The society, upon the report of a committee, of which that able alienist, Dr. John P. Gray, was chairman, after careful consideration, unanimously recommended to the schools of the state that they give instruction upon this important subject. Following up this initiatory movement in the state society, I subsequently brought the matter before the American Medical Society, where it received a hearty endorsement. Some of the Metropolitan schools have already acted upon this suggestion, and appointed professors

to teach Psychological Medicine as a special department. It is with great satisfaction that I assure you this long cherished desire on my part is likely soon to be an accomplished fact in your Alma Mater. We shall, I trust, at an early day, have an institution opened here that will furnish ample opportunity for clinical instruction, and there is little doubt that the enterprising faculty of this college will make it available in furthering progressive education. Insanity is a subject of which the young practitioner is generally totally ignorant; but I trust, that at no distant day, the graduates of this college will leave it thoroughly instructed therein. It is needless to state that the clinical advantages afforded by the two large hospitals, situate as they are in a city of nearly 200,000 inhabitants, afford ample opportunity for seeing all the diseases found in this country, and without such a crowd as to prevent the modest from examining patients and witnessing operations. We, the faculty, claim for the Buffalo Medical College that it has always been progressive—intelligently, conservatively progressive—in everything pertaining to medical instruction and that it will continue in the same course. We recognize the fact that modern medicine consists more in preventive than curative measures; we shall enlarge our course in hygiene and sanitary measures and abridge it in dry therapeutical detail; we shall offer to our pupils an opportunity to profit by all the advances in diagnosis whether resulting from new instrumental devices, new applications of recognized principles, or in new methods of chemical analysis of the various secretions of the human body, or of the elements taken for nutrition, alimentation or medication. In short, we shall use every means in our power to send out our graduates thoroughly armed and equipped for the contest with disease, and you may rest assured that your Alma Mater will always deserve your confidence and support. It shall be our aim to raise higher and still higher the standard of medical education, and secure the confidence and affection of all those who have shown themselves worthy of the honors of the Buffalo Medical College.

The remarks of Prof. White were loudly applauded.

ART. II.—Warm and Hot Water as a Surgical Dressing. Résumé of cases treated in Dr. FRANK H. HAMILTON'S Wards at Bellevue Hospital, November and December, 1878; with supplementary remarks.

The object of this paper is to show, in some degree, the range of usefulness of warm and hot water in the treatment of surgical accidents; and although a service of two months, even in a large hospital, is too short to demonstrate its value in many suitable cases, yet it will be found long enough to teach a good many useful lessons.

CASE 1.—*Lacerated Wound of Arm.* Victor Cavart, æt. 19, November 12, 1878, his arm was caught in the cog-wheels of some machinery, and being admitted to ward 11 on the same day, there was found to be a badly lacerated wound of half the length of the forearm. Hot water fomentations were at once applied, as there was no bleeding. On the 14th the bath was substituted. 19th, fomentations resumed. 25th, water dressings were discontinued, (14th day.) Dec. 7th, left the hospital, but returned occasionally to have it dressed. Dec. 28th, (less than seven weeks,) cicatrization complete.

In this case, although there was extensive contusion with the laceration, very little inflammation, and scarcely any destruction of tissue by gangrene ensued.

CASE 2.—*Traumatic Erysipelas.* Michael C. Broderick, æt. 52, driver, fell from his truck Nov. 25th, 1878, inflicting a severe lacerated and contused wound upon his forehead. The wound extended to the bone. He was admitted to the hospital on the same day, but not until some physician had very improperly sewed up the wound. Although the stitches were removed within twelve hours after they had been inserted, the neighborhood of the wound and the side of the face had already become red and swollen. Pus soon formed beneath the skin, and on the 9th day an erysipelatous inflammation extended over a considerable portion of the side of the temple and face.

At this time, on the 9th day, my attention was called to the patient, and I ordered water fomentations; temperature of about

100° Fahrenheit. Nine days later the erysipelas had disappeared and the warm water was discontinued, no other treatment, either local or constitutional having been employed. I may add that I have not for several years (probably fifteen years) adopted any other treatment in traumatic erysipelas, and no other *local* treatment in any other form of erysipelas, either in private or hospital practice; that in no instance has the erysipelas extended, except very slightly, while the water was continued, and all have recovered; and, so far as I can judge, as rapidly as they could have recovered under any other plan of treatment.

CASE 3.—*Autopsy Wound. Septicæmia.* James O'Brian, æt. 40, employed in the Dead-House, while sewing up a body upon whom an autopsy had just been made, pricked the middle finger of his left hand just above the last phalangeal articulation. This occurred on the 6th of November, 1878. Within twenty-four hours the whole hand became swollen, red, hot and throbbing, the pain extending up to the axilla and breast. Forty-eight hours after the accident he consulted Dr. McC., who ordered a dose of castor oil and a flax-seed poultice. The swelling continued to increase.

O'Brian was admitted to the hospital on the fourth day after the injury was received, with his hand and arm much swollen to near the elbow, and with considerable febrile disturbance. He was much depressed from apprehension. On admission he was assigned to ward No. 1, by mistake, where he remained four hours, when the error was corrected and he was transferred to ward 30. Within an hour hot water fomentations were applied to hand and forearm, including the elbow, by my chief of staff, Dr. Hoehheimer, who ordered also a dose of castor oil. Within an hour he declared himself relieved of the pain; and on the 16th of November, sixteen days after admission, the swelling of the hand and forearm had entirely disappeared and the water dressing was discontinued. He was discharged cured on the 20th of November. He has since informed me that the flax-seed poultice gave him no relief, but that the warm water fomentations brought relief almost at once.

CASE 4.—*Chronic Ulcers of Leg. Granulations freshened by*

hot water; subsequent successful Grafting. T. F., æt. 24, admitted Dec. 12, 1878, with an extensive ulcer of the leg, which had existed three years. The ulcer was indolent, and was discharging a thin sanies. The loss of skin was so extensive that it was decided at once that by grafting alone could we succeed in covering the whole surface with new skin; but preparatory to the grafting it was necessary to render the granulations healthy. Accordingly, the patient having been put in bed, hot water fomentations were applied, and on the fifth day the granulations were red, firm and in all respects healthy. We at once proceeded to place upon the surface quite a number of small grafts, nearly all of which became adherent, and two weeks later the ulcer was closed.

This patient had come to me from Illinois, representing that he had never been able to make the sore heal since the skin was first destroyed by a severe injury. The result illustrates, therefore, both the value of hot water in revivifying indolent granulations, and also the value of skin grafting in this class of intractable cases.

I regret to be obliged to add that about a month later, while the patient was sitting up, the new skin again ulcerated in several points, and the hot water treatment had to be resumed.

CASE 5.—*Indolent Ulcer of Foot; granulations encouraged by hot water, followed by successful Grafting.* Pat. Bannon, æt. 32, suffered a laceration, followed by sloughing of the integument over a considerable extent of one foot. The accident happened in June, 1878, and about six months later the wound had not healed. November 25th, 1878, he was ordered to bed and hot water fomentations applied. Five days later the granulations looking fresh and red, the ulcer was grafted at several points. On the 5th of December, many of the grafts had taken, and on the 1st of January, 1879, the cicatrization was complete for the first time since the accident occurred. Five weeks from the day on which the hot water applications were commenced. It must not be understood that the hot water was continued after the grafts were applied. I think the dressings after this were adhesive strips and Balsam of Peru. My only purpose in reporting this case, therefore, as in the preceding case, is to show how speedily the granulations

were brought into a condition to bear the grafting. Grafts never do well on unhealthy ulcers.

CASE 6.—*Compound Fracture of Tibia and Fibula. Gangrene and Erysipelas arrested by hot water. Spontaneous separation and recovery.* Robert Edgerton, æt. 41, sustained a compound fracture of both bones of the left leg above the ankle, on Dec. 13th, 1878. He was taken to Roosevelt Hospital, and the limb was dressed according to Listers method. The patient refusing to remain, was sent home, and on the 16th, he was sent to Bellevue Hospital, ward 11; when admitted his pulse was 134, and his temperature 103. The whole limb below the point of fracture was in a state of gangrene, and an erysipelatous blush extended far up the limb. His condition did not warrant a reasonable hope that amputation would save his life; and in case an amputation were made, it could not be made with any hope of success at a point lower than the knee-joint.

The limb was immediately enveloped in hot water fomentations at a temperature of about 105° or 110° F.

December 20th, the erysipelatous blush had receded and a line of demarcation had formed in the soft parts near the seat of fracture.

December 23d, with forceps and scissors I removed the dead limb at the seat of fracture, or a little below, without the loss of a drop of blood. Hot water continued.

January 1st, 1879. Hot water discontinued, wound granulating well. Patient in good condition. Substituted vasaline dressings for the hot water.

CASE 7.—*Trephining Tibia. Treatment of the Wound with Warm Water.* J. T., æt. 22; admitted to Ward 5, Nov. 1878, suffering from otitis (*osteo-myelitis*) of the lower end of the tibia; bone expanded and tender; suffering from severe and almost constant pain. In order to relieve the inflamed and imprisoned tissues, but not with the expectation of finding pus, I trephined the tibia before the class of medical students.

Warm water fomentations—temperature of about 95° or 100° F.—were at once applied, and continued uninterruptedly until the wound had filled with granulations and cicatrization was nearly

complete. From the date of the operation the pain ceased, and the cicatrization was effected in about two or three weeks.

CASE 8.—*Amputation of first Metacarpo-phalangeal Bone.—Neuritis.* Margaret Mahar, æt. 35, had a felon on right ring finger when 10 ten years old, which was opened, and left some contraction of the finger.

When 25 years old she had a felon on her right thumb, resulting in the loss of the last phalanx.

In 1877, a felon occurred on the right index finger; an incision made for its relief resulted in a tedious ulceration, and finally a cicatrization with contraction of the finger at a right angle.

June, 1878, she was admitted to Bellevue Hospital with a broken rib; and on August 10th (service of Dr. Mott) to relieve the deformity, the index finger was amputated through the middle of the first phalanx, taking care to remove all of the old cicatrix, which was very sensitive.

The sensitiveness remained after the healing of the stump; and, indeed, it was rather increased. Sept. 4th (service of Dr. Mason), the finger was disarticulated at the metacarpo-phalangeal articulation. In this operation, and during the subsequent treatment of the wound, Lister's method was employed; but, as the wound healed, the pain and sensitiveness increased.

Dec. 12th, the pain in the stump not having abated, and the patient desiring that another attempt should be made to give her relief—and she then being in my service—Dr. Hockheimer, my chief-of-staff, made at my request another amputation, removing the metacarpal bone at its articulation with the trapezium. All of the cicatricial tissue was carefully removed.

The wound was not closed by sutures, as in both of the preceding operations, nor were any ligatures required; but it was at once dressed with warm water fomentations, and these were continued until the cicatrization was nearly completed. The edges of the wound became infolded considerably during the progress of the cicatrization, and this suggested to some of those who saw it at this stage, that it would be necessary to dissect up the infolded skin and unite their edges by sutures. I did not predict that this would become necessary, and the result proved that it was not. The in-

verted skin gradually unfolded itself, and the wound healed without any crease or depression at the point of union.

I would have been glad to be able to say, both for the good of the poor woman and for the reputation of warm water, that the nervous sensibility and pain did not return, but they did return, yet somewhat tardily. I cannot say positively whether, in this respect, she is better or worse than she was before the last operation, but probably about the same. The fact is, I fear, that she has become affected with a chronic neuritis, for which, in my experience, neither re-amputation or resection of nerves has ever yet brought permanent relief. A cure may sometimes be effected by other means, but not by these.

CASE 9.—*Acute Rheumatic Arthritis.—Relative Effects of Cold and of Hot Water, in the same case.* Mary Welch, æt. 42, admitted to Ward 12, Sept. 4th, 1878, Dr. E. Mason's service. About the 21st of August preceding she had been seized at night with a severe pain in the right wrist, followed by pain, heat and redness, accompanied with chills, fever and sweat. Two weeks after admission to the Hospital the inflammation left her wrist, and a week later it attacked the left knee, which became swollen and very painful; the leg becoming gradually contracted—flexed—upon the thigh. Oct. 2d, extension was applied with $4\frac{1}{2}$ pounds, and on the 5th the weight was increased to 9 pounds., and pads placed under the knee. Oct. 6th, limb laid on a double inclined plane, and extension continued. Oct. 9th, severe abdominal pains; apparatus, etc., removed and limb supported by pillows; after which the pain soon disappeared. Oct. 11th, extension again applied with $4\frac{1}{2}$ pounds; limb supported by pillows.

Oct 19, *ice bags* applied to knee; extension continued. The ice was continued three days, and then Tinet. Iodine was applied. Nov. 7th, ice bag applied again, and continued to Nov. 16th (nine days), and the extension to the 15th (more than one month).

I had been on duty since the first of Nov., and as the limb was now straight, and the application of the ice bags was agreeable to the patient, I had not interfered with the treatment; but on this day I made a careful examination, in order to determine whether the patient might not leave the bed. I found the knee straight,

and without swelling, but almost completely ankylosed; while the slightest attempt to move the joint caused most exquisite pain. Directing my attention to the ankle, I observed that the long continued extension had brought the foot down, with the toes pointing to the foot of the bed; and that in this position it was, also, almost completely ankylosed, and the slightest attempt to elevate the foot caused exquisite pain through the ankle and tarsus.

I will now say, unhesitatingly, that the ice-bags and the extension were responsible for the ankylosis both at the knee and ankle, and also for the exquisite sensibility of these parts when the limb was moved. These means had subdued the swelling of the knee, and straightened the leg upon the thigh; but they had, at the same time, caused the ankylosis and the morbid sensibility of the knee, and had distorted and ankylosed the foot and rendered it, also, equally sensitive to motion; although at the foot, so far as we know, no disease had previously existed. The ice-bags had also, I believe, given rise to a similar morbid sensibility, which extended over the integument of the whole limb below the knee. This is no new experience to me. I have seen this morbid sensibility induced by the long continued application of ice-bags before, and especially when they have been applied in persons of a feeble constitution, and nervous temperament. Others have observed the same. Essentially this opinion is expressed by Sanson, when he says: "It is well known that cold applications may cease to be useful, and may even become hurtful, by rendering the flesh oedematous, and pale, and causing it to become irritable when suppuration is established in the wounds." Cloquett remarked to M. Amussat (who is my authority for the above statement), that "he had observed the phenomena noticed by Sanson, in debilitated subjects, when cold has been used perseveringly." I will add, also, the testimony of a gentleman who 25 or 30 years ago was the leading Surgeon of Northern New York, and whose reputation as a man of large experience and careful observation was known throughout the State—Dr. Amasa Trowbridge, of Watertown, and Prof. of Surgery in the Willoughby Medical College, Ohio. In a letter to me he took occasion to speak of what he termed the inju-

ditions practice of some Surgeons in using cold water too freely in the case of sprains, which had often, in his experience, induced a permanent stiffness of the joints, and rendered them sensitive and painful.

But it will be unnecessary to sustain my statement as to the cause of the ankylosis and sensitiveness in this case, by referring to the opinions of others, inasmuch as the result of the change which was made on the 16th will probably supply all the testimony which is needed.

On the morning of this day, the 16th, the ice-bags were removed from the knee and foot (to which latter they had been applied for only a short time), and at night the hot water fomentations were substituted. These were found to be more comforting to the patient than the ice-bags; from day to day the sensibility of the skin and of the joints steadily and rapidly diminished, while there was no return of swelling; the ankylosis yielded in the same degree, and on the 5th of December, less than three weeks from the date of the application of the hot water, she was walking on crutches, and her joints were quite flexible. Of course this was not accomplished without giving daily passive motion to the joints, and very gentle massage was also employed: but neither of these were possible, as we demonstrated by trying, until the hot water had been applied. Before this the patient would not bear the touch of a finger upon the skin, or the feeblest possible motion of the joints without crying out with pain.

I have dwelt thus long upon the history of this case, because its lessons seem to be very instructive, and may prove useful in their application to many other analogous cases.

Brief Synopsis of the Principal Methods of Using Warm and Hot Water in Surgical Diseases and Accidents. We usually speak of water as being "cold" when the temperature is below 68° F.; as "tepid" when the temperature is between 77 and 86° F.; as "warm" when it is between 90° and 100° F.; and as "hot" when it is above 100° F.; but, of course, the application of these terms is somewhat indefinite, since what may be warm to one may seem hot or tepid to another. It will be understood, however, distinctly that in speaking of warm water I do not mean tepid.

Water in the form of a continuous *bath* is in general more efficient than when used in the form of fomentations; but its application is necessarily, in most cases, limited to the hand, forearm, foot and leg. When employed in the case of lacerated and contused wounds it ought not to be continued much, if at all, beyond the period of acute inflammation—perhaps we may say from seven to ten days; and even during this period, if the patient is incommoded by the bath, the limb may occasionally be removed and treated by fomentation. If continued too long in the bath the limb is apt to become oedematous. No limb ought to be put in a warm or hot bath until all bleeding has ceased, and a delay of twelve or even twenty-four hours does not abate its good results. In these cases no sutures, straps or bandages are useful, but on the contrary, they are generally injurious.

Mr. John Rynders, of 304 Fourth Avenue, New York, has made under my instructions some zinc arm and foot baths for this purpose; but in almost any private house very excellent substitutes may be found.

For the purpose of *fomentations* we may use one or two thicknesses of sheet lint saturated with the warm or hot water, and applied closely to the entire circumference of the limb, the whole being wrapped in oiled silk cloth. To be most effective the sheet lint must be made to touch the surface of the skin, and open wounds, everywhere, and it must extend some distance beyond the parts injured; the oiled silk must be opened as often as every half hour, and the water again applied so as to keep up the elevated temperature; but the dressings need not be renewed oftener than once or twice daily, since the constant re-application will drain off the discharges. Of course this plan renders necessary some arrangement for drainage—and there are many cases in which the water can not be used thus freely, because the drainage cannot be made so complete. We thus lose some of the advantages, but the method will not be without its good results.

Cotton batting may be used as a substitute for sheet lint, especially that which is deprived of its oil, and is known now as the “absorbent cotton.”

In the ear it is used as a bath, by pouring it into the ear; in the

eye as a bath, effected by means of an eye cup, or by fomentations; in the nose by insufflation; in eczema and herpes, as a bath or fomentation; in the vagina as a douche, and as a means of arresting hæmorrhage, by the sponge.

Summary of the Surgical Diseases and Accidents to which Warm and Hot Water may be Advantageously applied. I shall enumerate first only those in which my own experience has demonstrated their usefulness.

1. Contusions, sprains, acute and subacute synovitis, subacute rheumatic arthritis, ankylosis of joints due to passive contraction of ligaments, chilblains. (Hot water.)

My experience in the use of hot water as a remedy in chilblains is limited to one trial in my own person. I have frequently suffered from chilblains in my toes during the colder seasons of the year, and I have always been able to obtain relief by immersing the foot in cold water for a few minutes, but during the present unusually severe winter one of my toes having become swollen and painful I determined to try hot water. During the two preceding nights I had been very much disturbed by the constant burning pain. In the morning I put my foot into a basin of water at a temperature of about 100° F. At first and for about two minutes this caused severe, sharp pains, like the pricking of needles, when the pains suddenly subsided; but at every attempt to elevate the temperature the pricking pains would return, and then again subside. I repeated this several times, and always with the same result. When I removed my foot it was quite easy, and on the following day the swelling had also disappeared, and neither the pain nor swelling have returned. The pricking sensation I ascribe to the returning circulation, by which the congestion or stasis of the blood in the part is overcome and the cure is effected. This happens, also, when cold water is temporarily applied, but only by the reaction which ensues. Hot water effects directly and instantly, what cold water effects indirectly and more slowly. Whether for this reason hot water is any more efficient or more permanently effectual than cold water, I am unable now to say.

2. *Lacerated and Contused Wounds, Punctured, Poisoned and, Gunshot.* (Warm or hot.) It is not generally prudent to employ

water in these cases, until the bleeding has ceased; and especially may it be necessary to delay the use of the bath under these circumstances for a few hours.

3. *Traumatic Gangrene.* (Hot water.) While the curative effects of warm or hot water have been in many other cases surprising, it is in this class of cases that the effects of hot water have been to me wonderful. Many of these cases, in which limbs and lives have been saved when no other surgical expedient seemed to offer any chance, have from time to time been published by me in the *Medical Journals*.

4. *Erysipelas, especially Traumatic.* (Warm or hot).

5. *Indolent, Inflamed and Stoughing Ulcers.* (Warm or hot).

6. *Otitis Media.* I have seen my friend, Dr. St. John Roosa, oculist and aurist of this city, in a case of acute Otitis Media, attended with acute pain, pour into the ear with a teaspoon a few drops of water as hot as it could be borne, and after three or four repetitions, within half an hour, the pain was relieved and the inflammation speedily abated. He informed me that this is his first resort in all of these cases.

7. *Parenchymatous Hæmorrhage, from the small vessels after amputation, and in all wounds.* (Very hot water). For a long time I have observed, and others have observed before me, that water, at almost a boiling temperature, applied by the aid of a sponge, held in a pair of forceps, will arrest very speedily a troublesome parenchymatous hæmorrhage. Cold water or ice may do the same, but the cold acts in a great measure by forming clots in the vessels, and when reaction takes place the bleeding may return; but hot water shuts up the vessels and is less liable to be followed by secondary hæmorrhage, and is never likely to prevent union by first intention. The spray of carbolic acid does the same, and this is one reason why it is serviceable; but in this respect it is no better than hot water.

8. *Eczema and Chronic Herpes exedens, especially in the Chronic Eczema of the Legs, of the Verge of the Anus and Vulva.* (Hot water). Dr. Lucius O. Bulkley, dermatologist of this city, and others, have publicly affirmed their confidence in its value in these and other similar cases.

In addition, I refer to the experience of Dr. A. H. Goelet, of this city, as to the value of hot water fomentations, with bandages, in the treatment of Phlegmasia Dolens, in one of the late numbers of the *New York Hospital Gazette*.

There is some recent testimony as to the value of warm water in traumatic tetanus, also; although in two cases in which I have tried it, it has failed. Upon this point, and as to its applicability to the gangrena senilis, and allied affections, my experience has not yet been sufficient to warrant the expression of an opinion.

Hot water injections have also, in my experience, and in the experience of many others proved exceedingly useful in various vaginal and uterine affections. Dr. Pitcher, of Detroit, and Dr. Emmett, of this city, were the first among the Surgeons of the present day to call attention to this fact; and most gynaecologists in this country are now using the injections satisfactorily.

Dr. C. Agnew, the well known ophthalmologist of this city, uses hot water in certain corneal irritations and chronic granulations.

Dr. Leonard, of Detroit, uses hot water with salt, in acute nasal catarrh, by the douche.

Accidents which, in my experience, Warm and Hot Water will Prevent. They prevent traumatic erysipelas, septicaemia and gangrene; at least I may say, that not in one of hundreds of cases of traumatic injuries treated under my observation, have either of these accidents or sequelæ occurred, when warm or hot water have been employed from the first.

Finally. There is not much in all this which is new. Hippocrates recommended hot water in "fractures of the bones, especially of those which have been exposed," (compound); in "wounds of the head and in mortifications; in herpes exedens of the anus, of the privy parts, the womb, the bladder." * * * Speaking of dislocations of the ankle he says: "At each time that the bandages are taken off, much hot water is to be used, for in all injuries at joints the affusion of hot water in large quantities is to be had recourse to." Hot water, he says, is anodyne. It soothes rigors, spasms and tetanus. It is useful "in pains, suppurations, frequent tears, and deep ulcers of the eyes."

Celsus, Galen and Rhazes of the older writers, repeated very much

the same sentiments. In 1732, Lamorier called attention to the use of warm water. Gnyot, Louis, Paré and Guthrie have added their testimony.

In Germany the value of warm water has been extolled by Max Schede and by Billroth.

In this country, and within a few years, warm or hot water have been used satisfactorily in one way or another (I refer only to those whose opinions have been publicly recorded), by Moses Gunn, of Chicago, E. M. Moore, of Rochester, by my late pupils Fred. E. Hyde, of New York (see this journal Dec. and Jan., 1875-6), and A. H. Goelet, also of this city, by C. Henri Leonard of Detroit, Mich., the late Paul F. Eve, of Nashville, Tenn., by Emmett, Agnew, Piffard, Roosa and Bulkley, of this city.

Of the verbal testimony of Surgeons brought to me from numerous sources, I do not feel at liberty to make a public statement.

P. S (March 20, 1879).—In case 6 I made a resection of the protruding bone in February, a sharp erysipelas followed, occasioned probably by the Esmark bandage; the erysipelas commencing six or eight inches above the end of the stump, where the pressure of the bandage was greatest. This is the first case in which I have known erysipelas to commence while warm water was being used; but under the continued application of the water it soon disappeared, and is now healing rapidly.

————:O:————

ART. III.—Early Indications of Insanity. An Address delivered before the Alumni Association of the Buffalo Medical College, February 23d, 1879. By JUDSON B. ANDREWS, M. D., Assistant Physician, New York State Lunatic Asylum.

I desire to acknowledge the honor of being asked to address the Alumni of the Buffalo Medical College on the Anniversary occasion. There are gathered here those, who for years, have been our leaders and instructors in medical science; those who have gained wisdom and experience by lives devoted to the practice of medicine; those who now go forth to lives of usefulness, and let us hope to fortune, in their chosen field of labor; and others whose presence here to-night tells the interest and kindly feeling they entertain

toward the College and the profession. To address such an audience carries with it a responsibility one might well hesitate to assume, but, having assumed it, it only remains to bespeak your indulgent consideration of a few remarks upon the subject of insanity, and the early indications of the disease. .

As sanity, or the possession of reason in normal, healthful activity, is the most valued of God's gifts to man, so insanity, or the perversion or impairment of reason, through disease, is a loss not easily estimated. Other forms of disease affect the individual, mainly in his relation to the physical world. However extensive the injury to the body, however helpless the person may become, the intellectual power, and the moral responsibility, may still be left in undiminished strength. Insanity, on the other hand, involves the higher life of the individual; it affects his relations to his fellow-man, and impairs or destroys his self-control, and therefore his responsibility before the law, and may render him a hopeless wreck, irresponsible, and entirely dependent upon others.

The study of insanity has been under difficulties and obstacles, more numerous and serious, than have surrounded investigations in other departments of medicine. A potent reason is found in the fact, that a symptom of the disease, the mental aberration, was, for a long time, mistaken for the disease itself. This brought most prominently into view the mental and moral phenomena, and these were studied to the exclusion of the real disease. Investigations in this direction naturally fell into the hands of metaphysicians and theologians, by whom insanity was thought to be a disease of the mind or of the moral nature, and as the latter, to be synonymous with sin. Speculations of this character accomplished little for science, and still less for the insane. The treatment founded on these theories, consisted of amusements, mental exercises as a recreation, and of appeals to conscience, or to reason which are already involved. There was, in this, only mystery to the common mind, and to the professional mind nothing tangible or satisfactory, and it was only when the real nature of insanity was appreciated, that the light of truth dispelled the darkness of former superstition and error. The recognition of the theory that the brain is the instrument of the mind, and that perverted

mental manifestations are due to disease of that organ, was the great step of progress in the study of insanity. Hitherto the subject had been approached from the wrong direction, but now there was in the disease of the physical organism a material something to account for the facts observed; something to investigate; something for the physician to do. For the first time the disease was brought within the purview of rational medicine, and the result has been the steady increase of knowledge of the disease and of its treatment.

As a general statement of fact, the cause of all insanity, as of other diseases, is to be found in the neglect, or in the direct or incidental infraction of the established laws of physical or mental health. It may originate from the physical side of man's nature, as from some form of ill-health, in which the nutrition of the brain is affected, or from the mental side, when excessive brain action produces the same result. In the ambition to become rich, to acquire power, to gain prominence in science or literature, the plainest laws of existence are too often transgressed. The claim of the body, especially the brain, for repose, for sleep, or even for nourishment to repair the waste of ordinary or excessive activity, is disregarded, and the often vain hope is fostered that an escape from the penalty of our actions is not only possible, but certain. The folly of this course has been plainly pointed out by a recent writer,* in the following well chosen words: "This marvelously constituted brain—men may ignore it—despise it—degrade it—but they do it at their peril; and let them remember that whether the result is or is not actual madness, they will pay the penalty sooner or later, in some form or other; they will not be permitted to escape the consequence of the infraction of the laws on which its integrity hangs."

A powerful predisposing cause of insanity is found in hereditary tendency. This is sometimes sufficient to account for its presence, under the operation of comparatively slight exciting causes. This is but stating a well known principle of medical science, and one fully recognized. It is impossible to estimate the force of heredity in the production of disease of the brain, but that it in-

* *Insanity and its Prevention.* Dr. Daniel Hack Tuke.

creases the liability to attacks, is beyond cavil or dispute. The instability of nerve element, implied in heredity, has a positive influence, and is a definite power.

In judging of insanity, it is important to have clearly in mind what it really is, what changes it produces in the mental and moral status of the individual. Practically, insanity is shown by a change in the disposition, sentiments, desires, habits, conduct or opinions, induced by, and founded upon disordered states of the brain. Every case is to be judged not by any arbitrary standard, but by the change in the person himself. Each one, therefore, becomes the measure of himself, and we are to inquire what the individual was, and what he has become through disordered conditions of the brain. When viewed from this stand-point there is nothing of mystery in the disease; nothing to separate it from the field of general medicine, or to prevent its being investigated by all.

“There is nothing mysterious or peculiar in the methods of study or treatment. It is the patient and careful investigation of laws, and the application of well recognized principles in medical science; and not a question of interpretation of mental phenomena, or the study of mind, so much as an observation of the reciprocal influence of morbid physical and psychical states on the great nervous center, the brain.”*

Its investigation is specially important to the general practitioner, as upon him devolves the responsibility of the diagnosis, and of the treatment of the disease in its initiatory stages. He is also made by legal enactment competent to decide the question of its existence, and of the necessity of care in a hospital.

The early indications of insanity assume an importance as they mark the period when treatment may be of avail in averting a threatened attack. The pathologic processes in the brain which produce insanity are preceded by certain changes in the physical system and in the mental habits of the individual, which, if understood and appreciated, are often susceptible of arrest by proper hygienic and therapeutic measures. It, however, sometimes hap-

* “Insanity and its Relation to Medicine.” By Dr. John P. Gray. President’s Address. Transactions of New York State Medical Society for 1868, page 86.

pens that the aid of the physician is not invoked till the disease has openly declared itself. This arises from the fact that by the great majority of individuals the occurrence of insanity, in their own persons or families, is not considered as within the bounds of probability, and all the initiatory conditions are overlooked or disregarded. Again, the changes are of such an insidious character, or are accounted for so fully by existing circumstances, that the patient and friends are entirely misled as to their real import.

Among the earliest indications which should attract attention as a precursor of insanity is the occurrence of morbid dreams. The mental activity during sleep, which constitutes dreaming, is so common in the experience of most people as not to be considered important as an indication of disease. There are, however, many cases on record in which dreams have preceded insanity, as well as other disordered states. Dreams, especially of a frightful character, as of being tortured or murdered, of dying or of the grave, occurring in persons unaccustomed to dreaming, and without a definite exciting cause, are often prodromic of disorder of the brain and of the nervous system, and have long been recognized by medical writers as worthy of consideration. "Such symptoms in medical psychology," says Tuke, "are like the delicate clouds in the sky in meteorology; they indicate to the practised observer the coming storm."

Of still more importance, and also of greater frequency as a precursor of insanity, is impairment of the function of sleep:

"Sleep, that knits up the ravell'd sleeve of care,
The death of each day's life, sore labour's bath,
Balm of hurt minds, great nature's second course,
Chief nourisher in life's feast."

This impairment may vary from a simple state of wakefulness to one of persistent sleeplessness. In a normal healthy condition sleep naturally follows activity; action and repose being the physiological sequence. In disordered states of the brain the operation of this general law is often interrupted. Action is often but the stimulus or spur to increase activity. From disturbance of the circulation within the cranium there results an irritability of nerve tissue which may prolong the existing cerebral excite-

ment. In this state thoughts follow each other in quick succession; past events of life are recalled with painful minuteness, or plans for the future present themselves in all the varied forms and combinations of which the imagination is capable; or, again, the most trivial matters demand and enforce the attention, in spite of the strongest efforts of the will to seek repose, and to bound the mental horizon with the one thought of sleep. At last, after many vain efforts, and perhaps from sheer exhaustion, sleep visits the weary one. It is but a fitful slumber which yields to ready waking, and the morning light finds the sufferer unrefreshed and unfitted for the labor of the day. Such states frequently arise from over-work, either mental or physical, and when the former is popularly called "mental strains." The liability to this is greatest among those engaged in public life, or among professional or business men, or those at the head of large corporations. Instances will occur to all in which wakefulness or entire loss of sleep has been thus induced. It does not always lead to insanity, but is, in all cases, a warning of danger which can not with safety be disregarded.

Impairment of sleep may result from exceptional causes—the accidents of life rather than the daily habit. Such are an additional and unusual amount of labor, unexpectedly thrown upon the individual, from which he can not escape; or it may be the overpowering influence of some emotion, as a long period of anxiety over the illness of a dear friend, or perhaps grief at his death, or the worry that comes from the sudden destruction of one's hopes or prospects in life. Again there may be no mental or physical cause apparent, sufficient to account for the disturbance of sleep, but this seems to be the earliest of a series of conditions which may gradually culminate in insanity. This statement, however, simply shows the imperfection and incompleteness of our knowledge, as it is impossible to accept the belief that an effect can be produced without an adequate exciting cause.

Disturbances of other functions than that of sleep are common as precursors of insanity. The following combination of symptoms, when not otherwise fully explained, should receive attention as indicating the danger which threatens. There is loss of appe-

tite and indigestion, with pain, cructation, flatulence, heart burn, and offensive breath. The circulation is disturbed, the heart beating irregularly, or with diminished force, and the pulse is increased or lowered in frequency. There are flashes of heat, alternating with chilliness, and coldness of the extremities. The skin is harsh and dry; the bowels are constipated; there is usually loss of flesh which may extend to emaciation, and the whole organism sympathizes in the general depression.

There is another array of symptoms, in part the opposite of that described, which also frequently precedes an attack of insanity, especially when it is rapid in its access. The heart's action is increased in force, the pulse is full and strong, the face flushed, the eyes injected, and the temperature of the surface slightly elevated. The appetite may be unaffected, or even ravenous, but there is usually loss of flesh. In this condition there is marked increase in the activity of the vital functions, manifested more especially in the circulatory system. This combination of symptoms may furnish a warning of approaching disorder of the brain, usually of a congestive or hyperæmic character. It is, however, so frequently found in the early stages of febrile disease, that its real significance as an indication of insanity, may be overlooked or misinterpreted.

In other cases there may exist no such association of morbid symptoms, which forces itself upon the attention, and so often points to the brain as the organ directly threatened. There may be disease in some other part of the system, by which the nerve centers may become implicated, as shown by the abnormal mental action. The heart may fail to supply the amount of blood necessary for the nutrition of the brain, or the arteries and capillaries to distribute the life giving fluid to its delicate tissues. The lungs may be interrupted in the performance of their duty to supply the purifying and exhilarating oxygen, or the glandular system may be disturbed in its offices of secretion or elimination.

Disturbances of sensation not only exist prior to attacks of insanity, but often continue as serious symptoms of the disease. Among the most frequent of these is headache. This is usually described as a dull, aching sensation, but sometimes as a sharp,

acute pain. It is often accompanied by a feeling as if a band was drawn tightly about the head, or as if the hat was too small; or, again, there is a sense of pressure, as if the brain was too large for the skull. Some complain of a throbbing of the arteries, others of a singing or a roaring in the ears, or a noise of falling water, much the same as that produced by quinine, when taken in full doses. In other cases there is a feeling of excessive heat, or of a crackling or crepitant sensation, often likened to the sound made by frying. The last mentioned sensations are more often referred to the vertex, and occur in the nervous and excitable, especially in women. The pain in the head is located most frequently in the frontal and temporal regions, and next in order in the occipital, and is produced by disturbances in the circulation of the blood in the meninges. These abnormal sensations are frequently followed by wakefulness or entire loss of sleep.

Muscular restlessness is often present, and may be manifested either in localized movements of the extremities or in the more general movements of the whole body. The hands or feet may be kept almost constantly occupied during the waking hours in the repetition of certain motions, while the abstraction of the individual gives them the appearance of being unconsciously or automatically performed. Again the person may move restlessly about without apparent purpose or design, and without being able to assign any cause, further than an inexplicable sense of uneasiness or discomfort. This condition is dependent upon nervous irritability, in turn due to some enfeebling mental or physical cause. Another state, the opposite of this, sometimes exists, in which there is not only a disinclination to muscular movements, but action, both mental and bodily, is performed only by a strong effort and the direct exercise of the will. The feeling of weariness may be insupportable, and the tendency to sleep yielded to upon the most inopportune occasions. The loss of control over muscular movements, indicated in these conditions, and that shown, though in less degree, in the irregular twitching or jerking of the muscles of the tongue, and of those about the mouth, sometimes become important aids in the early diagnosis of insanity.

With these changes in the physical system, and preceding the

outbreak of the disease, there are necessarily associated disturbances of the mental state. The earliest are commonly found on the side of the emotions. These may be slight, amounting only to an exaggeration of the ordinary emotional status; or they may be more marked, and the inclination to laugh or to cry many be yielded to in spite of efforts to control the feelings. There may be no adequate cause for the unusual emotional excitement, or, if such exists, the exhibition of it may be contrary to the habit of the individual. This disturbance of the emotions frequently takes the form of a feeling of depression. There may be loss of spirits, or a shading off from the natural cheerfulness of disposition, noticeable to friends, and at first fully appreciated by the person himself. When rallied a smile may, for a moment, light up the countenance, and a cheerful remark may, for an instant, dispel the gloom, but a relapse soon follows. A cloud seem settling down, which grows darker as it approaches nearer. The despondency deepens, till that state is reached,

“When nature, being oppress’d commands the mind
To suffer with the body.”

There are forebodings of some indefinite, indefinable evil impending, from which no way of escape lies open. Then commences an introspection; all the thoughts are turned inwards; all the acts of life are subject to a review and scrutiny, more severe than by the most unfriendly tribunal. The judgment rendered is always adverse and self-convicting. Notwithstanding the verdict is declared against himself, the unhappy man only returns to the task, and repeats the process.

In the direction of depression, and partaking of the same general character, is the development of scruples of conscience. These may exist concerning the performance of duty toward God or toward man. They sometimes lead to an unhappy zeal in the observance of religious rites and ceremonies, and to self accusation of intentional wrong, if not of criminal action, in the simplest affairs of life. This occurs alike to those of the most exemplary lives, and of undoubted Christian faith, and to the wicked and depraved, and is often considered only an evidence of a tender con-

science. In this state many a one whose life has been a model of honest purpose and faithful action, accepts the inability to lament over his conduct, as an evidence of hypocrisy and hardness of heart. He seizes upon some trifling act which has nothing of the moral element in it, raises it to a position of vital importance, and makes to cluster about it the whole issue of life in this world and the next. It is not a matter of surprise that when this condition is not recognised as dependent upon disease of the physical organism, the spiritual aid of the priest should be invoked, rather than the more material support of the physician, or that insanity should be considered as a disease of the spiritual nature. Dr. Tuke says upon this point, "sudden and extraordinary scruples should also excite attention and concern, indicating as they frequently do, latent brain mischief, and a twist in the emotions which, although seemingly leaning to virtue's side, may nevertheless be pure delusions, simulating conscientious duty, and leading the misguided fancy into courses of action which, if the brain fog is ever dispelled by the sun of returning health, are remembered with bitter but unavailing regret."

Another indication of commencing insanity may be manifested in a change of conduct, in the direction of an unnatural indecision of purpose. This may occur regarding matters of little real moment as well as those of vital importance. The clothing to be worn, or the food to be eaten, or any of the minor affairs of every day life, which are ordinarily decided without thought or question, then become subjects of serious consideration, and are magnified to a degree out of all proportion to their significance. Other questions which demand discrimination and a just comprehension of causes and effects, produce an agony of doubt, which obscures the judgment and prevents intelligent action. Whatever course is finally resolved upon, may be given up for another, which in time makes place for some new line of conduct. The vacillation and uncertainty thus exhibited, may be in strong contrast to the ordinary stability of purpose and character.

A change in disposition, without sufficient rational cause, may have the same significance. The naturally gentle and amiable may become irritable, morose or fault finding. This change is

manifested, first, toward the members of the family and intimate associates, and is concealed from ordinary or casual acquaintances. It, however, gains more complete control, and affects the individual in all the relations of life. Unfounded suspicions and jealousies, in the beginning vague and shadowy, give rise to a belief in the existence of a general spirit of opposition to the plans and purposes in which the person is interested. At first they are reluctantly expressed, and readily removed by appeals to reason. Eventually they are attached to individuals, and becoming more fixed in the mind, often take the form of hatred and opposition to the most loved and nearest of kin or to the dearest friends.

An unnatural buoyancy of feeling or levity of manner, in contrast to former habit and disposition, sometimes indicates the departure from the normal mental state. Friends are apt to ignore this condition, as it seems to them to be of good omen. "It is a symptom serious in itself, but of more decided import when attended by alternations of depression." Other early changes may also show increased mental activity, which takes the form of exaltation or exaggeration. Under the influence of this the quiet and retiring become talkative and obtrusive, the dependent and modest, self-reliant and self-confident. In daily life this leads the business man to entertain an extravagant view of his ability, to overestimate his financial strength, to talk boastingly of his past success, or of his prospects, and still further to enter upon schemes for the acquirement of wealth, which are unwarranted, injudicious, and often ruinous. It makes the economical housewife wasteful in expenditures, or to neglect home duties for unusual excitements of social life, while the youth under the same influence, suddenly acquires, in his own estimation, the mental stature of manhood, and all attempts to control or restrain only provoke opposition, or open conflict with proper authority. Regarding the diagnostic value of this state of increased mental activity, "it is most important to remember that exuberant spirits, mental exhilaration, loquacity, when unusual to the individual, are fully as serious indications as the opposite state of mind."

Other changes worthy of note, though less important than those already mentioned, are departures from neatness and regard for

dress and personal appearance, to a neglect or disregard of them; or, on the contrary, there may be developed a love for show and externals in matters of apparel, entirely inconsistent with previous habits.

There are instances in which insanity is so insidious in its approach that it is not recognized until fully established, and sometimes not until it has already reached a chronic stage. In these cases there is often an intensification of natural characteristics; this occurs especially in persons of marked peculiarities of temper or of disposition, which often exist in those of a congenitally feeble mental organization, or, on the other hand, in those possessing mental strength and vigor, but who are without proper balance or training. It is sometimes difficult in these instances to distinguish the changes wrought by disease from capriciousness, eccentricity or false views of life. Such people are inclined to be irritable, quarrelsome, self-willed, and are unpleasant in their families, and in their relations as neighbors. They imagine or greatly exaggerate grievances, and are given to the habit of trying to rectify them by appeals to law. They continue to grow more ill-tempered and irascible, till they sometimes become the terror of a community. At last, from the violence of their conduct, they may be brought to the notice of the authorities, when a thorough examination reveals their actual mental condition, and they are shown to be insane and irresponsible.

I have thus attempted to sketch briefly and concisely the most common and prominent of the initiatory changes, both physical and mental, which precede and point to an approaching attack of insanity, and also to notice some of the circumstances which may obscure the early recognition of the disease. It is not claimed that the list is complete, or that the various combinations in which the symptoms exist have been presented. These will differ much, as do the history of the cases under investigation. They will, however, be found to be naturally classified under the divisions employed—disturbances of function, of sensation, and of mental states. The manifestations of the mental disturbance, both in subjects and direction, present the greatest diversity, and are as various as the ages, the educational advantages, the social circum-

stances and surroundings of individuals, or the troubles or misfortunes with which their lives may be checkered.

If, in some of the descriptions of mental changes, the boundary line of sanity has been passed, it must be borne in mind that the border land between sanity and insanity is sometimes shadowy and indistinct, that it may be crossed and re-crossed before the mental status becomes finally certain. Delusive ideas of to-day may be dissipated on the morrow, only to be renewed with greater force and more full control, till at last they are received with a full belief in their reality. It is during this state of uncertainty and doubt that not unfrequently the person has an appreciation of his condition, realizes the fact that he is becoming insane, and seeks relief from his trouble. This period promises the best and speediest results to judicious medical treatment, and hence the importance of its full appreciation by the physician.

“With the advance of medical science, insanity has been more and more practically understood; and, happily, the mystery and dread associated with it melt away under the light of investigation and experience; and both physicians and laymen see it in a less formidable light, when it is brought before them in its true character of a cerebral disease, and only a disease. Now the triumph is complete, mystery and superstition vanish, and the insane man stands forth simply as a sick man: one, who by reason of cerebral disease, is unable to use his brain—not a man with a mind diseased, a mad mind, an enfeebled mind—but with a brain and nervous system so disordered as to disturb, confuse, heighten, or lessen the mental operations; a mind acting through a disordered organ—a spiritual being untouched by disease, looking through the disordered and broken house in which he dwells.”*

—:o:—

An argument in favor of compulsory vaccination is found in the fact that in Philadelphia, with nearly a million inhabitants, but where vaccination is general, there was not a single death last year from small-pox. Under the old *régime* the number of deaths should be at least a thousand annually, which would be greatly multiplied during an epidemic.

* Transactions of New York State Medical Society for 1868, page 88, op. cit.

Editorial.

Surgeon-General Woodworth.

The sudden death of the Supervising Surgeon-General of the Marine Hospital service will be received with deep sorrow by the Medical profession, as well as by the whole country. He has been the acceptable and efficient head of an important department of government, and his loss will be widely felt. His active efforts in regard to State Medicine during the past year have attracted the attention of the profession and public, and gained for him the respect and appreciation which he so richly deserved.

Doctor JOHN MAYNARD WOODWORTH was born at Big Flats, Chemung County, N. Y., August 15, 1837. He was taken to Illinois by his parents, and was educated at the University of Chicago. He first studied pharmacy, and attended the lectures on medicine and chemistry at Rush Medical College. He afterwards entered upon the regular study of medicine in that institution. The winters of 1859, 1860, and 1861 he spent in the Smithsonian Institution, working under the personal supervision of Prof. Spencer F. Baird. He graduated in 1862 at the Chicago Medical College. He immediately entered active service in the army of the Union as an assistant post surgeon at Camp Douglas, Illinois, and shortly after was appointed assistant surgeon of volunteers, and joined General Sherman in the field near Corinth, remaining with his command until the Union armies were mustered out in 1865. In 1863 he was promoted to the rank of surgeon, and assigned to duty as medical inspector of the fifteenth army corps, and afterward medical inspector and medical director of the army of the Tennessee. During Sherman's march to the sea he was brevetted lieutenant-colonel. 1865 he visited Europe, and in 1866 he established himself in Chicago. In 1871 he was appointed surgeon-general of the marine hospital of the United States, a position which he held up to the time of his death.

"Eye and Ear Infirmary," or "Oculist and Aurist."

The Medical Society of the State of New York, at the Annual Meeting held June 18th, 1878, passed the following resolution—the subject being presented by the legal proceedings recently instituted in the Niagara County Medical Society:

WHEREAS, The question has been referred to us for decision. Now, therefore, for the purpose of declaring an authoritative decision upon the question, and for the information of the profession, therefore be it

Resolved, That it is a breach of the Code of Medical Ethics of this Society for a member of a County Society, entitled to send delegates to this Society, to use upon signs, bill heads or advertisements, by way of advertising his profession, the words 'Eye and Ear Infirmary,' or 'Oculist and Aurist.'

Extract Malt and its Combinations.

Extracts of Malt with the preparations now made by the various Pharmacutists seems to be rapidly taking the place of, or supplementing Cod Liver Oil and the Elixirs, formerly so extensively used. It requires time and careful observation to determine its positive value, its theoretical and apparent value is already acknowledged.

————:o:————

MALTINE.—Our market is now supplied with the Maltine preparations furnished by Reed & Carnrick. We have made trial of these preparations and can now safely say, our patients so far as heard from, are well pleased with their effects. Maltine Wine is an especial favorite with some, and I must confess myself among the number.

————:o:————

MEDICINAL WINES.—We call the attention of physicians to an article of wine imported by Mr. L. Reich, of New York. We can commend the wine imported by Mr. Reich to the medical profession for their purity and medicinal value. It is endorsed by leading men as of value in cases of nervous exhaustion, general debility, and to invalids generally. His goods can only be obtained directly from him, not being on sale in any drug or liquor store.

————:o:————

THE BUFFALO TELEPHONIC EXCHANGE is now in active operation, thus connecting us with all parts of the city, and capable of doing admirable service. It is greatly to be regretted that there should be competing lines to the disadvantage of both Companies, and diminished value to subscribers. We hope this evil will soon be abated. Telephonic communication is the wonderful discovery of the age.

————:o:————

ACTIVITY IN BOOK-MAKING—We have so large a number of recently published books on our table that we have been wholly unable to give them any deserved mention, though we have given our space to that object and made all notices unwarrantably brief. We will review their contents as early as possible, but presume many of our readers will have read and formed their own estimate of their merit before we shall be able to reach them.

————:o:————

RELIGION AND CHLOROFORM.—Dr B. W. Richardson lately gave a Sunday afternoon lecture in London on "Anæsthetic Sleep and the Temporary Abolition of Pain." He remarked that the credit of having introduced chloroform belonged to the late Sir James Simpson, of Edinburgh. Its introduction and application were objected to on religious grounds, some people contending that man, according to Scripture, should endure pain and trouble throughout life. Sir James Simpson threw the scriptural argument back upon those who used it by saying that when the first man had an operation performed upon him he was put in a deep sleep, and knew nothing of the time when the rib was taken from him.—*Journal of Chemistry.*

Books Reviewed.

A Monograph on the Treatment of Diphtheria based upon a new Etiology and Pathology. By WILLIAM C. REITER, A. M., M. D. J. B. Lippincott & Co., Philadelphia.

We can best indicate the views of our author by brief extracts from the chapters upon Etiology and Treatment, though the entire paper requires to be read to gain knowledge of the author's views:

ETIOLOGY.—“Epidemic diphtheritis belongs among the infectious diseases, and even among those that are most typically *contagious*. The *miasmatic* origin of the disease is doubtful, at least in our country, where it has only occurred during the past ten years, and has appeared almost exclusively as more or less extensive epidemics which occasionally spread around from one place to another. The contagion is contained in the false membrane and shreds of tissue detached from the fauces, and in the air breathed out by the patient.” . . .*

My own observations in the epidemics of 1863, '64, and '65, and in that of 1877, compel me respectfully to object to the conclusions of this most learned authority in practical medicine. The predisposing cause, whatever it be, is neither infectious nor contagious. An epidemic predisposing a people to diphtheria, erysipelas, typhoid fever, or any other disease, only attacks a proportion of the population, and our explanation is, the perfection of the vital organism resists external mal-influences. Who has not vaccinated a child for the fourth or fifth time before the poison has induced its specific effect? Whatever the predisposing epidemic cause may be, when it reaches a subject and makes its power felt, the metamorphosis of fibrin in the portal system is impaired, and the functional disturbance must be the remote cause of this fearful malady. And the violence of disease is in proportion to the fibrinous excess in the blood. How this happens is hard to tell, and impossible to explain; we live in opposition to, and in spite of, the common forces of matter.

TREATMENT.—“Prophylaxis requires that the physician should protect himself from contact with the false membrane and shreds of tissue that are coughed up, and that he should warn the attendants on the patient of the dangers of this contact. When circumstances permit, those who have nothing to do with the care of the patient should keep out of the sick-room.

“The recommendations of the varied internal and external remedies that are said to have proved efficacious against diphtheritis, have usually originated in the last stages of epidemics, at which time the cases are milder and recoveries more frequent, even without treatment. Almost all physicians experienced in the treatment of diphtheria agree that, in severe attacks, the most prized remedies *are perfectly useless*.”

The Antagonism of Therapeutic Agents, and What it Teaches.

The essay to which was awarded the Fothergillian Gold Medal of the Medical Society of London, for 1878. By J. MILLER FOTHERGILL, M. D., Edin. Philadelphia: Henry C. Lea, 1878.

This book is well worthy of careful perusal, and will correct some common errors concerning incompatibles or antagonistics in the treatment of disease. By experiments upon animals the author shows the antagonism of aconite and

* Niemeyer, Practical Medicine, art, Diphtheria, vol. ii, p. 614, *et seq.*

atropia, aconite and digitalis, aconite and strychnia, atropia and prussic acid, belladonna and calabar bean, belladonna and jaborandi, belladonna and morphia, bromal hydrate and atropia, caffeine and morphine, calabar bean and strychnia, chloral and calabar bean, chloral and picrotoxine, chloral and strychnia, strychnia and hydrocyanic acid, strychnine and nicotine. The experiments upon which conclusions are based were carefully conducted and are as convincing as experiments upon animals can possibly be made. The essay deserves the prize awarded, and merits careful perusal by the medical profession.

Lecture on Localization in Diseases of the Brain. Delivered at the Facultie De Médecine Paris, 1875. By J. M. CHARCOT, Professor in the Faculty of Medicine of Paris. Translated by Edward T. Fowler, M. D., New York. William Wood & Co. 27 Great Jones street, New York.

The author prefaces his Lectures by "I have selected information furnished by normal Anatomy, experimental physiology and clinical observation, illustrated by methodical examination of organic lesions. I have always given precedence however, to the last mentioned order of testimony. Convinced that, although normal Anatomy and experimental Physiology may serve to indicate the true direction; still Clinical and Pathological research are necessary (in case of the human subject) to the final judgment as to the *furnishing proof.*"

The work comprises Twelve Lectures, with illustrative cuts of brain organs and brain diseases, and cannot fail to interest and instruct the careful reader. It is a vigorous attempt to illustrate and explain the obscure, undetermined and unlocated diseases of the brain.

Index to Original Communications in the Medical Journals of the United States and Canada, for 1877. Classified by subjects and authors. Compiled by WM. D. CHAPIN. New York. Price One Dollar.

All authors who are investigating special subjects must be most deeply interested in this little volume. The valuable original articles in all American and Canadian Journals may through the aid of this index be easily referred to, thus adding to the value of the journals and greatly facilitating reference. We regard it as *invaluable*, and believe this will be the unanimous verdict of the profession. Index for 1878 is being compiled by the same author. National Printing Company, 16 Chambers Street, New York.

On Rest and Pain.—A Course of Lectures on the Influence of Mechanical and Physical Rest in the Treatment of Accidents and Surgical Diseases, and the Diagnostic Value of Pain. By JOHN HILTON, F. R. S., F. R. C. S., Surgeon Extraordinary to Her Majesty the Queen. New York: William Wood & Company, 27 Great Jones Street.

This is the first volume of Wood's Library of Standard Medical Authors, which has been offered to the profession at such prices as to attract the attention of the profession everywhere. Twelve volumes to complete the Library for the astonishing low price of twelve dollars for the entire number. This first volume speaks favorably for the enterprise. It is practically valuable, and its subject matter should be studied by all physicians.

Medical Chemistry, including the Outlines of Organic and Physiological Chemistry. By C. GILBERT WHEELER, Professor of Chemistry in the University of Chicago. Philadelphia: Lindsay and Blakiston. Chicago: S. J. Wheeler, 1879.

The idea of dividing Chemistry into organic and animal for the benefit of physicians and medical students strikes us as appropriate and desirable. The author of this work, from long familiarity with medical men and intimate knowledge of the wants of medical students, has been able to meet the requirements of physicians and furnish a book on Medical chemistry exactly suited to their wants. The book has great practical value, is concise and comprehensive, including considerations of every subject connected with Medical chemistry, and should find its way to the library of every physician. It is *the* chemistry for a practitioner and medical student.

A Guide to the Practical Examination of Urine for the use of Physicians and Students. By JAMES TYSON, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, one of the Physicians to the Philadelphia Hospital, Fellow of the College of Physicians, etc., etc. Second edition, revised and improved, with illustrations. Philadelphia: Lindsay and Blakiston. 1878. Buffalo: T. H. Butler. Price \$1.25.

In the present edition of this little work the author has carefully corrected the previous one, as well as improved it, by incorporating some of the most recent analyses without increasing the size of the work, and has presented the profession a work which is a guide to the practitioner in his daily practice. Its concise form and practical ideas can not fail to insure its success as a general text book upon the examination of urine and its adoption by the profession at large.

An Atlas of Human Anatomy, illustrating most of the Ordinary Dissections and many not usually practiced by the Student, accompanied by an Explanatory Text. By RICKMAN JOHN GODLEE, M. S., F. R. C. S., Fellow of University College and Senior Demonstrator of Anatomy in the University College. Philadelphia: Lindsay and Blakiston, 1878.

We have here a most magnificent and beautifully illustrated Anatomy. All the important surgical regions are represented by colored lithographic plates, making the work when completed invaluable. It is sold in parts at \$2.50 each, and should be in the hands of all physicians and surgeons. Too much cannot be said in praise of the anatomical plates. They are beautiful and true to life, as surgical guide equal to dissection, and with the explanatory text will take the place of dissection when this is impracticable. We shall have more to say of this work hereafter.

Practical Surgery, including Ligations and Amputations. By J. EWING MEARS, M. D. With two hundred and twenty-seven illustrations. Philadelphia: Lindsay and Blakiston, 1878.

This is a manual of Minor Surgery, giving in brief form, with ample and well chosen illustration: Part I—Surgical Dressings; Part II—Bandaging; Part III—Ligations; Part IV—Amputations. These subjects are considered in practical and instructive manner, and will prove a judicious and safe guide to the practitioner.

Transactions of the Medical Society of the State of New York. This volume is reduced in dimensions compared with former issues. Though we cannot say is in any degree less valuable. It is or should be in the hands of all physicians of the State, and consequently requires no detailed mention of contents.

Transactions of the Ohio Medical Society. This is a sprightly little volume of 227 pages, containing many valuable instructive papers and doing much credit to the profession of Ohio.

:o:

Books Received.

Clinical Lectures on Diseases peculiar to women. By Lombe Atthill, M. D., University Dublin. Philadelphia: Lindsay & Blakiston. Buffalo: T. H. Butler; pp. 335.

On loss of weight, blood-spitting and lung disease. By Horace Dobell, M. D.

Consulting Physician to the Royal Hospital for diseases of the chest, etc. Philadelphia: Lindsay & Blakiston. Buffalo: T. H. Butler; pp, 267.

The National Dispensatory, containing the Natural History, Chemistry, Pharmacy, Actions and uses of Medicines, including those recognized in the Pharmacopœias of the United States and Great Britain. By Alfred Stillé, M. D.; L. L. D. and John Maisch, Ph. D., with two hundred and one illustrations. Philadelphia: Henry C. Lea. Buffalo: T. H. Butler; pp, 1540.

Naval Hygiene, Human Health and the means of preventing disease, with Illustrative Incidents principally derived from naval experience. By Joseph Wilson, M. D., Medical Director U. S. Navy. Second Edition with colored Lithographs, etc. Philadelphia: Lindsay and Blakiston. Buffalo: T. H. Butler, pp. 257.

Lectures on Practical Surgery. By H. H. Toland, M. D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medical Department of the University of California. Philadelphia: Lindsay & Blakiston,. Buffalo: T. H. Butler.

Modern Surgical Therapeutics. A Compendium of Current Formulæ, approved dressings and specific methods of Surgical Diseases and Injuries. By George H. Napheys, A. M., M. D., etc. Philadelphia: D. G. Brinton, 115 South Seventh street, pp, 590.

The Diseases of Live Stock, and their most efficient Remedies, including Horses, Cattle, Sheep and Swine. By Lloyd V. Teller, M. D. Philadelphia: D. G. Brinton, 115, South Seventh street, pp, 458.

Transactions of the American Medical Association, Vol. 29, 1878: Philadelphia.

A Clinical Treatise on Diseases of the Liver. By Dr. Fried. Theod. Freichs, Professor of Clinical Medical in the University of Berlin, etc; in three volumes. Vol. I, Translated by Charles Murchison, M. D., F. R. C. P., Physician to the London Fever Hospital. New York: Wm. Wood & Co., 27 Great Jones street, pp, 219.

Physical Therapeutics; A New Theory. By Thomas W. Poole, M. D., M. C. P. S., Ont. Toronto: The Toronto News Company. New York: The American News Company. London: The International News Company, pp, 231.

—————:O:—————

Pamphlets Received.

Epidemics from a Chemical Standpoint; a lecture delivered by R. Ogden Doremus, M. D., L. L. D., before the Medico-Legal Society of New York.

The First Annual Report of the Presbyterian Eye and Ear Charity Hospital, Baltimore, Md.

Reports of the Trustees and Superintendents of the Butler Hospital for the Insane, Providence, R. I.

Clinical Lecture on Syphilitic Brain Lesions. By Ed. C. Seguin, M. D.

The Diagnosis of Progressive Locomotor Ataxia. By E. C. Seguin, M. D.

Report of the Pennsylvania Hospital for the Insane, for the year 1878.

History of the Medical Society of Oneida Co. from its organization July 1806, to July 1878.

Report of Investigations into the Pathology of Diphtheria, conducted by Edward Curtiss, M. D., and Thomas E. Satterthwaite, M. D., New York.

An Address presenting the Claims of the Medical Department. Read before a "Council" in the interests of Syracuse University. By Alfred Mercer, M. D.

Report on Aeonitia in Trigeminal Neuralgia. By E. C. Seguin, M. D.

A Contribution to the Medicinal Treatment of Chronic Trigeminal Neuralgia. By E. Seguin, M. D.

Conclusions of the Board of Experts, authorized by Congress to investigate the Yellow Fever Epidemic of 1878.

An Essay of Malpractice; read before the Luzerne county Medical Society at Wilkes-Barre, January 8th, 1879. By John B. Crawford, M. D.

Twenty-fifth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the year 1877.

Disease Germs; their origin, nature, and relation to wounds. By B. A. Watson, M. D., Jersey City, N. J.

A case of Progressive Muscular Atrophy with Sclerosis of the Lateral Columns. By Dr. J. C. Shaw, President of the New York Neurological Society, Medical Director of Kings county Insane Asylum.

The Causes of Sudden Death of Puerperal Women. An Address delivered before the American Medical Association, June 5, 1878. By Edward W. Jenks, M. D., Detroit, Mich.

Nineteenth Annual Report of the Medical Superintendent of the State Asylum for Insane Criminals, Auburn, N. Y., for the year ending September 30, 1878.

Oyster-Shuckers Comeitis, (Comeitis Ostrearum) By W. J. McDowell, M. D. Read before Baltimore Medical and Surgical Society Jan. 16, 1879.

Transactions of the American Dermatological Association, at the Second Annual Meeting held at Saratoga Springs, August, 1878.

On the Fracture of the Femur. By Edward Borek, M. D., St. Louis, Mo.

The Therapeutic value of Ergot. By J. W. Compton, M. D., Professor of Materia Medica and Therapeutics in the Medical College of Evansville, Ind.

The Non-Asylum Treatment of the Insane. By Wm. A. Hammond, M. D.

Malt-Liquors, Their influence on Digestion and Nutrition. By J. J. Coleman, F. I. C., F. C. S.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

MAY, 1879.

No. 10.

Original Communications.

———:O:———

ART. I.—The Anatomy and Dislocation of the Shoulder-Joint.

A paper read before the Rochester Pathological Society. By
WM. F. SHEEHAN, M. D., Rochester, N. Y.

The shoulder-joint belongs to the class enarthrodial, i. e., it is composed of a ball and socket—the ball being the hemispherical head of the humerus, and the socket—the shallow glenoid fossa of the scapula. Tipping these bony structures, and serving as a protective cushion, is a layer of cartilage wafer-like in thickness, and holding them together, at the same time that it allows a certain laxity and range of motion, is a saccular fibrous structure, the capsular ligament. Finally there is a synovial membrane which lines the capsular ligament and is reflected therefrom on the articular cartilages. Thus, bone, cartilage, synovial membrane and capsule are the essentials—the *sine qua non* so to speak, of every joint. But there is need of tendons and ligaments, so called accessories, to complete the structure of a joint, and forthwith nature, always complete in her handiwork, supplies them. In this category the shoulder-joint presents for examination the

glenoid ligament, the coraco-humeral ligament, and the tendons of insertions of the supraspinatus, infraspinatus, teres minor, and subscapularis muscles. As I regard these structures of vast importance in connection with shoulder dislocations, I shall claim for each as I describe it your individual attention.

I follow Gray:—The glenoid ligament is a firm fibrous band attached round the margin of the glenoid cavity; it deepens the cavity for articulation and protects the edge of the bone. It hugs the head of the humerus holding it in gentle grasp, and thereby helps to prevent luxation, or more probably sub-luxation, during the freest motions of the joint. The coraco-humeral or accessory ligament is a broad band which strengthens the upper and inner aspect of the capsule. It arises from the outer border of the coracoid process and extends obliquely downwards and outwards to the front of the great tuberosity of the humerus, being blended with the tendon of the supraspinatus muscle. This ligament is entirely united to the capsular in the greater part of its extent. The coraco-humeral may be termed Y ligament of the shoulder-joint. Between it and ilio-femoral ligament there is a striking analogy in mode of origin, distribution and insertion; and the time may come when the coraco-humeral ligament will play as important a role in relation to shoulder dislocations as the ilio-femoral does in the hip dislocations. Future investigation must of course settle this question. I myself have done some work along this line, but owing to a mishap in dissecting, the result was not determinate enough to warrant publication.

The tendon of the supraspinatus blends with and strengthens the capsule above and in front as it runs from the supraspinous fossa to be inserted into the major tuberosity; and the tendons of the infraspinatus and teres minor serve in the same capacity as they run from the infraspinous fossa and axillary border of the scapula over the back part of the capsule to be inserted into the major tuberosity near the attachment of the supraspinatus; whilst the tendon of the subscapularis strengthens the capsule in front in the neighborhood of the major tuberosity. He who has ever made a careful dissection of the shoulder-joint knows full well what nice touches of the scalpel are required to separate these tendons from

the capsule. They seem to form, taken together, a capsule around the capsule, super-imposed like plates of steel on the part of a man-of-war where there is most need of the greatest strength. From this anatomical distribution I have deduced the conclusion: That an ordinary or rather an ordinary extraordinary force is not sufficient to rupture the capsule above, behind, or before—the points of contact with the capsule of the tendons of the supraspinatus, infraspinatus, teres minor, and subscapularis muscles;—and there being impossibility of capsular rupture, there must needs be impossibility of dislocation in these directions. There is no need of controversy on this point, for I doubt if post mortem examination of a dislocated shoulder ever revealed a button-holed capsule in the locations above mentioned, unless in the instances where extensive lacerations may have followed great violence inflicted by powerful machinery.

Granting, then, the capsule to be so thick and strong above, behind, and before, as not to be ruptured during ordinary dislocations, we come to ask ourselves where is the capsule weakest—at what point is it most frequently ruptured? This place of least resistance corresponds with the lowermost quarter segment of the capsular arc; it intervenes between the two points of contact with the capsule of the subscapularis in front, and the teres minor behind. Unfortunately this weak spot corresponds with the sharpest or most prominent angle of the head of the humerus, so that when an ordinary violent force is impinged against the humeral shaft in such a direction as to give this prominence a downward tendency, the capsule ruptures, out slips the head, taking a direction downwards towards the axillary space—the direction which all authors agree the head most frequently takes.

Once the head is dislocated it may find itself a bearing at any point on the semi-circle between the coracoid process in front and the spine of the scapula behind, the precise location where it rests depending upon the counterbalanced action of muscles or sets of muscles, or the preponderating action of muscles over their antagonists. Thus, if the head rests on a right line below the glenoid fossa, I take it to be due to the even adjustment of the muscular force exerted by the subscapularis from before, and the teres

minor from behind, at the same time that the supraspinatus butts the head firmly up against the triangular depression occupied by the tendon of origin of the long head of the triceps. If the head is pulled forwards, it is due to the preponderating action of the subscapularis, whereas if it is pulled backwards towards the dorsum scapulae, the infraspinatus and teres minor preponderate. I now submit this proposition to your consideration:—

That this anatomical description renders the classification of shoulder dislocations beautifully simple. The head of the bone driven by ordinary violence leaves the capsule at the point of least resistance, viz: below. Having issued, it finds itself a bearing directly below the point of egress, or in front of it, or behind it, as the case may be, in obedience to the amount of force exerted by certain muscles. So that we can abandon as useless and perplexing the classification which recognizes subglenoid, and subcoracoid, and subpectoral, and infraclavicular, and infraspino s dislocations, since they are merely modifications of the one dislocation downwards. The head of the bone being out of socket, the next question which claims our attention is the best method for its reduction.

Some time ago when making a dissection of the shoulder-joint, I experimented as follows:—The capsule was button holed below, and the head forced out and made to find itself a bearing downwards, forwards, or backwards as occasion required, but no matter where located it could be wound into its socket by the following manipulations. The head being forward, the forearm was flexed on the arm, and the arm on the shoulder to as near a right line as possible. By this movement the head was freed at its bearing, and the coraco-humeral ligament and the tendons of the muscles already described relaxed. Then the arm was carried upwards and forwards across the chest, its axis being slightly rotated in a direction outwards. This movement threw the head backwards towards the glenoid major and downwards towards the button-hole of the capsule. Now if the arm was rotated briskly inwards, the head glided in with a snap, and all deformity disappeared. The mechanism of the third movement I take to be as follows: By rotating inwards the coraco-humeral ligament, and the tendons

inserted into the major tuberosity, viz: the supraspinatus, infraspinatus, and teres minor, were put upon the stretch, in virtue of which tension they pulled upon the capsule from above and behind, drawing apart the edges of the button-hole, at the same time that they served as rolling bars on which the head wound into its socket around the major tuberosity as a pivot. When the dislocation was backwards a reversal of these movements always resulted in reduction, and when downwards the same manipulation as practised for luxation forwards succeeded.

With a high degree of eagerness I awaited the coming of a patient on whom to test the experiments made upon the cadaver. The test case appeared in the person of Rebecca Williams, æt 30, a hand employed in a fruit establishment on Water street. She had been walking over a wet floor with a pailful of tomatoes in her right hand, when, suddenly her feet slipped, and she fell, striking on her left shoulder. I saw her half an hour afterwards. I bared the left arm up to the shoulder, and hastily running my hand over the bones of the forearm and arm excluded fracture. Directing my attention to the joint, I noticed flattenings of the deltoid, and a depression under the acromion; also a prominence in front of the joint, and a change in the axis of the arm which threw the elbow backwards, and outwards from the side. Placing my hand on the prominence in front of the joint, I found it to be the humeral head, and on taking the shaft, and attempting motion, motion was gone. I called a friend to assist me, and directed him to hold the scapula immovable. I grasped the forearm with my left hand below the elbow, and the arm close up to the axilla with the right, flexed both on the shoulder, carried the arm upwards across the chest, rotated briskly inwards, and the ball was in its socket. Twice during the operation I heard a grating; first, when the arm was carried towards the chest, secondly when rotated inwards. The noise was heard by all present. The reduction did not occupy as much time as its description; the amount of force exerted could be furnished by an eight year old child, and the pain caused the patient was exceedingly slight.

This paper is submitted for publication with a view of stimulating surgeons to a closer study of anatomy—especially of joint

anatomy. If an accurate knowledge of the tendons and ligaments around the joints prevailed, if the part they might be made to play in reducing dislocations were thoroughly understood, I am confident that reduction by manipulation, and not by great force, would be the order of the day.

ROCHESTER, March 17th, 1879.

—————:O:—————

ART. II.—Causes of Diphtheria. By MILLS.

Among the many theories as to the cause of diphtheria, I notice a statement of Dr. Quesner in a recent number of the *Boston Chemical News*, that he has almost come to the conclusion that the disease is to be traced to a fungus found in spots on fruits, especially apples. The fact that the disease was very prevalent last summer and fall in many of the apple growing districts of our own and other States, would seem to give weight to this decision. He says during the summer and fall, children are in the daily habit of picking fruit from the ground and eating immediately without rubbing or cleansing, thus taking into the system whatever may have grown or become attached to the surface of the fruit.

The fungoid origin of whooping cough was asserted some years since by M. Svetzerick, and seems now to be confirmed by M. Yschamer, who says he has found certain lower organisms in the spittle of whooping cough patients—organisms not met with in any other disease accompanied with cough and expectoration. He claims further, that the organisms are identical with those which by their agglomeration, form the black points or spots on the skin of many fruits, especially apples. M. Yschamer by inoculating rabbits with this fungus produced similar result to whooping cough.

The writer of this article as a microscopist has examined fruit this winter and has found the black spots on apples to consist of a fungus—one of the oidia. The spots vary in size from a pins head to a good sized pea. A small portion of the dark, downy tuft growing in the center of the spot when removed by the point of a pen-knife to a suitable slide and placed under the microscope,

will show the fungus. Mycelium and threads and spores extending from these sometimes cover a large part of the apple as may be seen with even a low power of the instrument. Slides can easily be prepared so as to show the fungus either as opaque or transparent. The spores are inconceivably small, and thousands of them with the mycelium might lodge in the fauces without being felt, unless they should begin to germinate.

The microscope reveals the fact that the decayed part of apples also is infested through and through with a similar fungus. Mr. Thomas Taylor, a microscopist in Washington, D. C., has discovered an Entozoa one of the anguicellulæ in a diseased pear, also in diseased peaches, and even in a diseased trophy tomato. These remarks are not intended to discourage the plentiful use of good ripe and sound fruit, but from the facts stated, it must appear to be the duty of all who value their own health and the health of those depending on them to see that the fruit eaten is perfectly sound and clean out side and in.

————:O:————

ART. III.—Extirpation of the Spleen. Reported by HENRY W. ROGERS (private student).

Mrs C., æt 40 years, first admitted to Sisters of Charity Hospital, Dec. 1878, under the care of Prof. T. F. Rochester, with a distinct hard tumor of the left side in the normal vicinity of the spleen. It had thus far passed her medical advisors under a variety of names, kidney fibroid tumor, cancer, &c. &c. Prof. R. after careful examination, pronounced it enlarged spleen. After explaining the nature and incurability of the malady, the patient was discharged to return home, her distresses not being wholly unendurable.

March 20th, 1879, was again admitted to Hospital Sisters of Charity. The tumor had now greatly increased in size, extending from ensiform cartilage to below the pubic bone, occupying the whole anterior portion of the abdominal cavity, somewhat obscuring the diagnosis, but Prof. Rochester remembering the case as found on first admission, was confident in the accuracy of his first

diagnosis, and as flesh and strength were rapidly diminishing, and no hope of recovery was entertained, he suggested *extirpation of the spleen*, and invited Prof. J. F. Miner to make the operation, which was accepted with the view that nothing could be lost and *possibly* relief might be temporarily obtained.

March 24th, 1879, Dr. Miner with Prof. Rochester and his private assistants, in presence of a large number of the physicians of the city, attracted by the rarity of the operation, made incision upon the tumor in the median line of the abdomen, the incision reaching from two inches above the os pubis to one inch above the umbilicus. On reaching the spleen it easily turned out, there being no adhesions. A distinct pedicle was found, composed of the vessels and suspensory ligaments of the spleen, considerably elongated from the constant traction by weight of the tumor. This was secured by a double ligature and separated from the tumor by careful traction, thus adding somewhat to the length of the pedicle, which was finally secured in the upper angle of the wound, as is common in the treatment of the pedicle after ovariectomy. The abdomen having been sponged out with carbolized water, the wound was closed with interrupted sutures. The operation occupied about fifteen minutes, no blood being lost except that which escaped from the spleen after its removal. The patient was then placed in bed in apparently comfortable condition, and $\frac{1}{8}$ gr. morphine administered hypodermically.

At 8 o'clock in the evening, pulse 110 and very weak, skin cold, and constant vomiting produced continual commotion of the abdominal viscera, and discharge of a little blood from the pedicle or margins of the incision, and bloody serum from abdominal cavity.

Death occurred eighteen hours after the operation from exhaustion.

The spleen weighed after removal, 7 lbs. 4 ounces.

So far as we are able to learn from the annals of Medical Literature, this is the first operation for removal of the spleen ever performed in this country, although forty-one cases are on record, as having occurred in the practice of foreign Surgeons; twenty-one of this number were operated upon for chronic enlargement

and Leucocythemia, of these only seven cases resulted favorably, while the remainder of the forty-one were operated upon for traumatic causes, and all terminated successfully.

In conclusion we may best quote the following paragraph from Ashurst, in which he says:

While excision would appear to be justifiable in a case of wound with protrusion of the organ, splenotomy for diseased conditions of the Viscus has not been sufficiently successful to encourage a repetition of the procedure. Hemorrhage, during or subsequent to the operation appears to have been the cause of death in most of the fatal cases.

—————:O:—————

Miscellaneous.

Surgical Notes from Berlin.

[From the Chicago Medical Journal and Examiner.]

AMPUTATION OF THE FEMUR.—A man aged 36 years, suffering from a malignant disease of the lower end of the femur, was brought into the amphitheater, and while the assistants were administering chloroform to the patient, and making other necessary arrangements for the amputation, Prof. Langenbeck made the following general remarks on the subject:

“Where it can be done, I make *side* flaps, instead of antero-posterior ones, as is generally done. I do this, first, because a better drainage can be effected after the operation, and second, because I believe any resulting cicatrix is more likely to be situated at a point that will render it less liable to be irritated by the friction connected with the movements of the stump.

“Again, I make my flaps *entirely*, of skin and its immediately adjoining tissues. I want no muscular tissue overlapping the end of the bone. If you have a long muscular flap, it is sure to either slough away or gradually become absorbed. If it should slough, it immediately complicates your case by adding to the dangers from septicæmia.”

When he had made his skin flaps he then made a section of the periosteum, extending half way around the shaft of the bone, and six centimeters in length. Having peeled this carefully back, he had a perfect covering for the end of the bone, after the latter was sawn off. He says, that since he has adopted this mode of procedure, he has never had a single case of secondary disease, such as caries or necrosis, following his amputations. When he

had sawn off the femur, and brought the skin over the end of the stump, lo! his flaps were so short that they would not come together without considerable tension. He remarked: "As you see, gentlemen, the end of my bone is either too long, or my flaps are too short, and, as I cannot lengthen the latter, I shall have to shorten the former;" and without another word of explanation he proceeded to saw off another six centimeters from the end of his stump.

Before he closed the wound, he applied eighteen ligatures, all of which, except the one to the main branch of the femoral artery, were of earbolized catgut. These ligatures of course were all cut short and left to be absorbed; and I have never seen him leave the long ends of ligatures out of a wound with a view to their future removal. A drainage tube was introduced into the inferior and superior border of the stump, and the whole was sewed together in the most painstaking manner. The stump was dressed with Lister's antiseptic dressing, the whole operation being done under the spray. The operation lasted one hour and ten minutes. In contrast with this time, I have seen Prof. James R. Wood, of New York, do this operation complete in five minutes, making his flaps and sawing off the bone in forty-five seconds.

The result of this operation was most satisfactory indeed. The whole wound healed by first intention, and the patient never had a temperature above 37.5, and never suffered any considerable amount of pain.

In speaking of the rapid recovery of this case, Prof. Langenbeck said that he attributed it mainly to the painstaking manner in which he had arrested *every vestige* of hæmorrhage before closing the wound. He believes that in the vast majority of cases where a constitutional reaction followed surgical operations of this kind, and which we had formerly been taught to look upon as having its origin in an inflammatory reaction, was in fact of a septic character, and that a decomposed blood clot situated at the extremities of open blood vessels, was the very best possible condition for generating such a process.

PROLAPSUS ANI.—A boy aged six years was brought into the clinic, suffering from this affection. It had troubled him for two years, but until within the last month the gut only came down at the time of the stools. For the last four weeks it had been down constantly, and neither the mother or her family physician had been able to replace it. In connection with the case Prof. Langenbeck said: "In this disease I have been able to cure *every case* in which I have instituted the treatment I shall adopt in this one, where the patient has been above three years of age.

"Why I have not been equally successful in those of more tender years, I cannot tell, but am disposed to attribute my failures to the fact of younger children being less manageable, and their pressing down efforts when they cry."

His treatment consists in the injection of ergotine into the cellular tissue beside the rectum. He passes the hypodermic syringe parallel with the gut to the depth of about three centimeters, and injects about 20 minims of the solution into each point, usually making the injection at two or three places around the sphincter.

As the mucous membrane of the prolapsed gut in this case was very relaxed and superabundant, he made three parallel incisions through it, about four centimeters in length, with the thermo-cautery, with a view of producing a cicatricial growth that would contract the parts when it healed. This last procedure he did not consider essential to the treatment, but it would probably hasten the cure. The gut was now replaced, and the boy put to bed, and the cure was complete, as the bowel never again came down.

I have been most highly pleased to witness Prof. Langenbeck's operations upon the uterus, and in listening to his lectures upon this subject, not only on account of his wide range of personal experience, but also on account of the fact that I look upon him as a man who is the least influenced by any special hobby of any man that I have ever seen operate on that organ.

UTERINE POLYPI AND FIBROIDS.—I saw him operate on a woman for the removal of a uterine fibroid polypus that had descended into the vagina and filled this organ so completely that the evacuation of both the rectum and bladder was completely obstructed.

The growth was so large that he was unable to pass the *écraseur* over the entire mass to its cervical attachment, and hence had to pass the chain of the instrument around its segment, and remove it in three separate portions.

The last was so large that he had to extract it with a pair of obstetrical forceps. He said: "Whether these growths be solid, soft or cystic, there are only three modes of removing them that I recognize as proper to adopt, and these are, the knife or scissors, the *écraseur* and the galvano-cautery. When they are attached high up in the uterus, I do not like the galvano-cautery, for the reason that you can never be really certain what you are burning, and you may destroy tissues that will lead to disastrous consequences."

The use of ligature for the removal of these foreign bodies he especially condemned. In the early years of his professional life, he had seen two patients die of septicemia following the removal of a uterine polypus in this manner.

We must remember, in all our operations upon the uterus, that although we have to do with an organ that will tolerate a good deal of mechanical violence, that we have also to do with a mucous surface that will the most rapidly absorb effete matter of any tissue in the entire body; and when a polypus is ligated it soon becomes a putrid mass, from which the whole economy may become rapidly contaminated. The twisting off of polypi he also considers a bad practice, and has seen at least one case where the

extensive laceration of the mucous surface of the womb attending the operation resulted in a metritis from which the patient died.

Prof. Schröder has in his wards at the Charité this winter some interesting cases to illustrate his management of different forms of uterine fibroids. In our treatment of these cases, he says, we should remember one fundamental rule, which is, that in the history of every such case there usually comes a time when the morbid growth will cease to increase in size, begin perhaps to undergo a retrograde metamorphosis, and become in time entirely innoxious as far as the well-being of our patient is concerned. Directly opposite to this are the facts connected with the history of most cases of ovarian cysts. Their tendency is ever to increase in size, and their removal will sooner or later be imperatively demanded. Keeping these facts in view, we seize upon the most appropriate time for our operative interference. In the management of a case of uterine fibroid, he says, investigate your case accurately as to this fact. Is its attachment situated upon the lining membrane of the *body* of the womb, or upon the *cervix* uteri. If it has its origin from the body of the womb, you are to consider it as a *noti me tangere*, unless it be the direct cause of symptoms that are likely to prove dangerous to the life of the woman. On the other hand, if it spring from the cervix uteri, you may operate on it in almost any way with comparative safety.

To arrest the hæmorrhages that accompany these cases, he swabs out the inner surface of the womb with either the tincture of iodine or a solution of one of the astringent salts of iron.

A question in which I have been greatly interested, and upon which I have interviewed everybody, is the value of the hypodermic injection of ergotine in the treatment of uterine fibroid.

Prof. Schröder says that he has often seen cases greatly benefited by this treatment, but has never seen a case entirely cured by it. By its use the hæmorrhage will often cease, and the tumor become greatly lessened in size. To test the remedy he says you must use at least one hundred injections. He makes them into the cellular tissue of the abdominal walls, and repeats them as often as every alternate day. As so protracted a use of an agent that is often very painful, taxes to the utmost the patience of both physician and patient, few carry it out thoroughly.

Braun, of Vienna, makes these injections into the outer aspect of the thigh, where they are better borne. He uses also Bourbelle's ergotine, and none other, as he says you never have an abscess follow its use. Its name, I believe, is derived from a Swiss chemist who manufactures it.

Dr. Routh, of Dorset House Hospital for Women and Children, in London is the greatest enthusiast of any I have met in Europe as regards the efficacy of his treatment of intra-uterine fibroids. His plan is to first puncture the tumor by passing a sharp pointed

instrument into it about the size of a number six English catheter. The depth to which he makes this puncture will depend upon the size of tumor, but will usually be to about one half the thickness of the growth. After making his puncture, he introduces into the hole thus made a wire of nearly the same size, heated to a red heat. He claims that in this way you can excite an inflammatory change in the body of the fibroid that will lead to its absorption, and that too without any dangers of a septic process following the procedure, which would be likely to occur if you attempted to accomplish the same object in any other way. He says that he has never failed to benefit a case that he has treated in this manner.

He was surprised when I told him that I had seen Prof. Péan, of Paris, carry out the same idea in the management of some cases at the St. Louis.

AMPUTATION OF THE CERVIX UTERI.—Of the various modes of doing this operation, Prof. Langenbeck prefers the knife or the scissors. The *écraseur*, he says, should *never* be used for this purpose. He relates a case that occurred in his clinic, when Prof. Bilioth was his assistant, in which, although he applied the instrument with great care, and kept his finger on the chain during the whole operation, Prof. B. tightening the screw, a portion of the bladder was included in the incision, and the patient died two days later of peritonitis. The objection that Prof. Langenbeck has given to galvano-cautery in this operation is that you can never be positively sure *just* how much tissue you are removing.

On the other hand, since I have been in London I have seen Prof. Barnes amputate the cervix twice with the *écraseur*. He used the instrument without a speculum, being guided wholly by the index finger of each hand, which he kept in contact with the chain.

After the cervix is removed, he applies the thermo-cautery, to arrest any hæmorrhage that may exist. This, he tells me, is his *uniform* mode of doing this operation, and that he is perfectly satisfied with his results. Prof. Barnes brought out a patient and laid her on the operating table, telling me as he did so that he was going to show me the American operation (Emmet's).

But on examining the cervix, and seeing it very red and congested, he concluded that he would wait a few days until the congestion in the parts subsided. In fact, he feared the hæmorrhage that would follow. I could but contrast his timidity with the confidence with which some German operators would have attacked these parts with the knife without the least fear or hesitation.

I have seen the amputation of the cervix done with the scalpel about forty times during my stay in Berlin, and not in a single instance have I seen any serious trouble in arresting the bleeding. Dr. A. Martin, of this city, read a paper last year before the gynæcological section of the German Medical Society, on "The

Therapeutics of Chronic Metritis," in which, after going on to state that all as medications, both local and constitutional, had proved of no avail in the management of the disease, he had been induced to resort to an operative procedure for its cure, which operation consisted in an amputation of the cervix uteri.

At that date (August last) he had done the operation 109 times. Of these patients, 72 suffered from a simple chronic metritis, one-half of which number he had had under observation and treatment for many months without the least improvement in their condition. Twenty-six were performed for a cancerous condition of the cervix, and eight for a local hypertroph of one or both lips of the neck of the womb. Of the cases, only two died as a direct result of the operation. One of these was very anæmic from loss of blood before the operation, and died of septicæmia soon after. The other proved fatal from the supervention of typhoid fever.

His mode of doing this operation is to cut away a portion somewhat funnel-shaped, the base below and the apex above, of from 3 to 5 centimeters in length, depending upon the length of the uterus, as measured by the sound before he operates.

I have followed Dr. Martin carefully for nearly four months, and have seen him and assisted him at this operation more than thirty times; and while I am perfectly sure that no *écraseur* nor galvano-cautery can do this operation so well as does the knife, I am sorry to be compelled to believe that, like some other of our noted gynæcologists, he is bent on doing "*his*" operation as often as possible, and so submits many a poor woman to this treatment, who might be relieved by a more simple procedure.

Unfortunately, like many another celebrated operator, he is inclined, I fear, to keep in the background as much as possible the accidents that follow his treatment.

I saw a woman in the service of another gynæcologist of Berlin, operated on for complete occlusion of the os uteri and hæmatometra, that followed an amputation of the cervix by Dr. Martin.

When I related this case to Dr. M., he said that this patient was one of two who had had secondary hæmorrhage following the operation, and he attributed this bad result in her case to the extra stitches that he had to put in, in order to stop the bleeding, as well as her having left his service and passed out from under his observation sooner than she should have done. Prof. Schröder's mode of amputating the cervix, and which Prof. Langenbeck recommends, is, in my mind, at once the most simple and easy of execution of any of the numerous modes of doing this operation that I have seen tried. Dr. Martin, however, objects to it because the resulting stump is somewhat flat, while when done after his plan (Dr. Martin's) the stump is conical in shape. Prof. Schröder's reply to this is, that nature has to re-shape the parts after any cutting procedure of this kind, and that in the end his operation leaves as natural cervix as any other. To do this

operation Prof. Schröder places his patient on her back, her thighs flexed upon the abdomen and the legs upon the thighs. (I have never seen a German operator place a woman in Sims' position).

A Simm's speculum is next introduced, and the perineum pressed well down. A Hegar's irrigator containing a 5 per cent solution of carbolic acid is now made to throw a constant stream of this fluid upon the cervix uteri during the entire operation. In fact, Prof. Schröder claims to make this operation strictly antiseptically, substituting the fluid carbolized solution for the spray. A pair of scissors are now introduced into the os uteri, and the os incised as high up as the vaginal insertion on each side. The cervix is thus divided into two flaps, and while an assistant pulls down and steadies the womb by means of a pair of forceps made fast to one flap, the surgeon seizes the other and amputates it readily with the knife, cutting, of course, from below upwards, so that you have left after the amputation a somewhat long flap-shaped mucous membrane to cover the stump.

By means of a curved needle, armed with a heavy silk ligature, two sutures are now passed from the vaginal mucous surface of the stump into the os. These sutures are each placed 1 centimeter from the median line at their point of entry into the vaginal walls. They are now tied tightly, and serve to render the os uteri patulous, as well as to pull down and hold the womb firmly, while the other lip is cut away in the same manner. From three to four stitches are next applied on each side of these central ones, and the operation is completed. The vagina is now tamponed well with salicylated cotton, which seals up the wound and makes the whole procedure antiseptic.

With the uterus thus firmly held, and with a needle curved to a semi-circle, and armed with a silk thread, there is but little difficulty in passing a suture through the muscular walls of the uterine stump in such a manner that when it is tightly tied it will include any bleeding vessel and effectually arrest any hæmorrhage.

German operators do not use silver wire for sutures, either for this operation or Emmet's, as they claim that the silk answers every purpose, and is much easier to apply and remove.

Prof. Langenbeck lays down one very emphatic rule as to the use of styptics to arrest hæmorrhage where operations have been done in the vagina, and where the probabilities are that the peritoneum has been encroached upon. *Never*, he says, use preparations of *iron* for this purpose. He relates several cases where he used a solution of iron, and after his patients died of peritonitis he found that the walls of the peritoneum had sloughed away from the effect of his styptic. He believes that even a moderately strong solution of iron will cause a necrosis of any serous membrane to which it is applied.

Prof. Frennd, late of Breslau, but now called to Strasburg to fill the place of Prof. Gusserow, appointed as Professor of Midwifery

in the University of Berlin, spent a month in the latter city this winter. As the reader perhaps knows, Prof. Freund is the father of the revised method of extirpation of the entire uterus through the abdominal walls.

I saw him operate on a case for Dr. Schröder just before I left Berlin. The patient was alive four days after the operation, but her recovery was considered doubtful. I saw him begin another operation of the same kind for Dr. Martin, but after making his abdominal incision, he found the pelvic glands so invaded by cancerous infiltration that he would not attempt the removal of the uterus.

He closed up the wound, and Dr. Martin then performed his amputation of the cervix uteri as a palliatory expedient. This poor woman had a good deal of constitutional disturbance, but was convalescing the last time I saw her, ten days after the operation.

Prof. Freund has done this operation of the total extirpation of the womb 12 times and has had 7 recoveries, while in Dr. West's tabulated 25 cases there occurred 23 deaths.

The enucleation of the womb entire through the vaginal walls, of which a lately published case is reported by Prof. Lane (I believe) of San Francisco, Prof. Langenbeck considers an anatomical *impossibility*.

He says, that while you may with considerable facility separate the *cervical* portion of the womb from its attachment, that when you reach the *body* of that organ, you cannot separate its muscular tissues from its peritoneal coating without the greatest difficulty, even when you have the uterus removed from the body and dissect with the greatest care, and as an operative procedure upon the living body he does not think its accomplishment possible.

TRACHEOTOMY.—A child six years old was brought into Prof. Langenbeck's clinic, and being placed upon the table. He said:

"Gentlemen, you would scarcely imagine on looking at this little boy and seeing how little his respiration is embarrassed, that I am about to open his trachea."

The patient was suffering from diphtheria, and had twenty-four hours previously developed a croupy cough. Prof. L. laid it down as a rule, to which there should be no exception, that in the management of these cases you should operate before signs of extreme dyspnoea and blood poisoning come on. Waiting will do no good, for with an almost absolute certainty tracheotomy will be necessary, and the longer you wait the less are your chances of success. The operation of itself is not dangerous unless done when the patient is in extremis. Since 1870 he has done this operation 700 times in his clinic. In some years he has saved as high as 40 per cent of his cases operated on, and in others only 10 per cent.

He was not able to explain why there should be this great dif-

ference in the mortality of his cases in different years; but one fact he did know, and that was that since he had given out word to the physicians of Berlin that they should send their diphtheritic patient earlier for this operation, his success has been much better.

In the City hospital of Berlin diphtheritic patients are kept in a ward adjoining that devoted to the chronic diseases of women. On making one of my evening visits to this institution with Dr. Alberts, physician in charge, he showed me a boy ten years old who had just been brought in with this disease, and upon whom he proposed to perform the operation of tracheotomy if the case did not improve after one hour.

I administered the chloroform, and the doctor cut down through the skin and underlying fascia, and with great care separated, as he thought, the two lobes of the thyroid gland with the handle of his scalpel, and finally reaching what he thought to be the trachea, made an incision into it. No air escaped, though he pulled the edges of the wound open with a pair of forceps. The true condition of things now flashed over him in an instant. He had gone outside of and behind the trachea, and had opened into the œsophagus. After waiting a few minutes and expressing his great horror at what he termed his *extreme stupidity*, he opened the trachea and put in the tube. With even this mishap this case did well as far as the operation was concerned, though the patient died five days later from extension of the diphtheritic process into the bronchi. The boy was not given any nourishment by the mouth for 24 hours, but after that time he was given fluid nourishment, which passed into the stomach without hindrance.

W. S. CALDWELL.

LONDON, March 3d, 1879.

—————:O:—————

The Complimentary Dinner to Dr. S. D. Gross.

PHILADELPHIA, April 12, 1879.

The complimentary dinner tendered to Prof. Samuel D. Gross, in commemoration of his fifty-first year in the practice of surgery, took place Tuesday evening, April 10th, at St. George's Hotel, southwest corner of Broad and Walnut streets, Philadelphia. The original plan had been that the dinner should be held at the Union League Club, but the accommodations not proving sufficient for the number of guests expected, the location was changed to the St. George's Hotel. The large dining-room of the hotel was richly decorated with plants and flowers. The music was furnished by Carl Sentz's orchestra.

The subscriptions to the dinner (\$10 each) were limited to one hundred of Prof. Gross's professional friends in Philadelphia.

The congratulatory address to Dr. Gross, the first event on the programme, was delivered by Dr. Agnew, who, as he sat down, touched Dr. Gross on the shoulder and said: "Allow me, in the name of your professional friends, to pin this token on the lappel of your coat. It was a gold medal, set with diamonds and brilliants, and bearing on its reverse side this inscription:

"Presented to Dr. S. D. Gross by his medical friends in commemoration of his fifty-first year in the profession, April 10, 1879."

Dr. Gross responded as follows:

"In rising to the toast offered by the distinguished chairman, I feel deeply oppressed by what Dr. Rush has so well described as "suffocated excitement." You need not be assured how much I appreciate the honor conferred by the occasion and by this warm reception. The sentiments embodied in the toast touch my heart, and I should indeed be dead to all the finer feelings of my nature if I did not tender you my most cordial and respectful acknowledgments. It is no light compliment to be in such a presence, or to be the guest of such a company. To merit the approbation of my professional brethren and of good men generally has ever been my highest ambition, as it must be of every honest and virtuous citizen. The offer of a public dinner extended to me a few weeks ago by a committee of my professional friends, took me completely by surprise, and would probably have been promptly declined if it had not been accompanied by such kind and flattering words as at once to satisfy me that they came from the heart. The commendations which you have bestowed upon my private character and public services as a practitioner and teacher of surgery are measured, I am conscious, rather by your own generous feelings than by any deserts of mine. Whatever value those services may possess, it is no ordinary consolation to me to know that they are appreciated by men among whom I have lived for nearly a quarter of a century, with many of whom I have been brought into frequent contact in various relations of life—often, indeed, under circumstances of a most trying kind—with some of whom I have been officially associated, and with none of whom, thanks be to God, I have ever had one word of misunderstanding.

"It is not a pleasant thing to speak of oneself, but there are a few circumstances in the history of my uneventful life to which I may perhaps be pardoned for referring upon this occasion. I have grown old in the profession, as pupil and practitioner for fifty-four years, my graduation dating back to March, 1828. A little over a month ago I closed my thirty-ninth course of lectures on surgery. If to these thirty-nine years be added two years spent as demonstrator of anatomy in the Medical College of Ohio, and four years passed in the medical department of the Cincinnati College as professor of pathological anatomy, it will be perceived that my life as a public teacher extends over a period of forty-five years. During all this time it has been my good fortune to miss few lectures,

either from sickness or any other cause. If my teaching has not always been of the best quality it has been as good as I knew how to make it. Whatever estimate may have been placed upon it by those who listened to it I can solemnly declare that it has always been earnest and conscientious, with an eye single to the interest of my pupils, the truths of medical science, and the honor and dignity of the profession. On no occasion have I entered the amphitheatre without due preparation. One of the great objects of my early professional life was to qualify myself for the occupation of a public teacher. This idea, which haunted me as I sat upon the hard benches of my alma mater, like the demon of Socrates, gave me no rest day or night. My first effort in this direction was made in this city, at the Franklin Institute, in the spring of 1830, the subject being general anatomy, a branch of study then little understood or cared for in this country. The effort, however, proved to be an abortive one. The novelty of the subject, my own inexperience, and the paucity of the students in the city at that time of the year were the causes of my failure. Finding practising and lecturing in so large a city to be up-hill work, I removed to Easton, in this State, whence, after two years and a half spent in earnest work, I went, in 1833, to Cincinnati as demonstrator of anatomy in the Medical College of Ohio. From this institution, after a service of two years, I was called to the chair of pathological anatomy in the Cincinnati College, in which I gave the first regular and systematic course of lectures on that most important branch of anatomy ever delivered in this country. In 1840 I was invited to the chair of surgery in the University of Louisville. In 1850 I became the successor of Dr. Valentine in the University of New York, but returned after the close of the session to the school in Kentucky. In 1856 I accepted the chair of surgery in my alma mater, unanimously tendered me by its honorable Board of Trustees.

“Having been thus actively engaged for so many years as a public teacher, it is not surprising that my pupils should be scattered over the country, while not a few of them are successfully practising in foreign climes. Upwards of five thousand diplomas bear my signature. Of the thirty-seven colleagues with whom I have at various times been associated, twenty-six have fallen by the wayside, for the most part ripe in years and full of honor, leaving eleven survivors, among others Williard Parker, Austin Flint, and John W. Draper, of New York; Benjamin Silliman, of New Haven, and our distinguished townsman, Joseph Pancoast, five men of whom any profession in any country might justly be proud. It has been said that youth is a blunder, manhood a struggle, and old age a regret. If this be true I have not realized it in my own person; nor need it be true of any one who is true to himself. Struggles of some kind or another are almost invariably the lot of every man who is not born with a silver spoon in his mouth. I certainly

had mine, but they were the struggles of early life, and thank God for them, for they taught me patience and perseverance and self-reliance, and were powerful aids in developing character. These struggles did not discourage me. On the contrary, I felt as Sheridan did when he made his maiden speech in the British House of Commons—that it was in me and would come out of me; or, as Erskine expressed it on a similar occasion, I felt that my children were tugging at my coat and urging me on to industry and perseverance that I might supply their necessities. A brave man never yields to despair. His motto is ‘*Perseverantia omnia vincit.*’ This has been my motto, and whatever success I have achieved is due to persistent effort and to a definite aim in life without any faltering or misgiving in regard to the final issue. I have never lost sight of the fact that what a man soweth he shall reap, or that ‘if the spring show no blossoms, autumn will show no fruit.’

“Much has been said about the inspiration of genius. The greatest efforts that have ever been made at the forum, in the pulpit, or in the senate, in ancient or modern times, were the result of hard study and patient labor. Patrick Henry, William Pinckney, Rufus Choate, and others like these, never made a great argument or a great oratorical display without preparation, and the same is true of every profession and every pursuit. After fifty years of earnest work I still find myself in the harness; but although I have reached that age when most men, tired of the cares of life, seek repose in retirement and abandon themselves to the study of religion, the claims of friendship or the contemplation of philosophy, my conviction has always been that it is far better for a man to wear out than to rust out. Brain work, study, and persistent application has been a great comfort to me, as well as a great help; it has enhanced the enjoyment of daily life and added largely to the pleasures of the lecture room and of authorship; indeed it will always, I am sure, if wisely regulated, be conducive both to health and longevity. A man who abandons himself to a life of inactivity after having always been accustomed to work is, practically, dead.

“In taking a retrospect of my life I have no regrets. I console myself with the belief that I have not lived wholly in vain, and that while much remains undone that might and should have been done, it might be reasonable to suppose that at least some of the seed which I have sown have produced good fruit. It is not given to every man to be a Harvey, a Hunter, a Jenner, a Bichat, a Morton, a Paget or a Virchow. ‘By the grace of God,’ says St. Paul, ‘I am what I am.’ No man can rise superior to himself. What is fame? Is it a phantom or is it a reality? Alas! too often the former; too seldom the latter. Few medical works, however meritorious, outlive their authors, and no sooner does a teacher retire from the field of his labor than his pupils worship other gods. Happy, thrice happy, is he who in the evening of his life, as he reviews his past conduct, can say to himself, ‘I have been true to my profes-

sion. I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' As I look back through the dark vista of half a century, what memories crowd upon my mind! Kingdoms have crumbled to pieces; new dynasties have sprung up; the world has been drenched in blood by contending armies; millions of human beings have been swept away by pestilence and famine; civilization, commerce, the arts and sciences, religion and education have found new homes; the uttermost parts of the globe have been explored by intrepid navigators and adventurous travellers; time and space have been annihilated by the telegraph, and the employment of steam and the application of machinery have changed the occupations of man and thrown upon us a surplus population, which the wisest statesmen know not how to dispose of. The art and science of medicine have been completely revolutionized and enriched to an extent which fifty years ago would have baffled the wildest conceptions. During these vast changes, so pregnant in beneficence to mankind, America has not been idle. If she had contributed nothing more to the stock of human happiness than anæsthetics, the world would owe her an everlasting debt of gratitude. The fanciful and mischievous speculations which characterized medicine in the days of my youth have been replaced by sober facts, founded upon more carefully conducted observations and more rational deductions. In preventive medicine a new field has been opened which, if properly explored and cultivated, as it seems destined to be, will add millions of years to the life of the human race. Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education and redeemed from the thralldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker.

"I thank you, Mr. Chairman, and you gentlemen, who have honored me with your presence here this evening, for the patience and attention with which you have listened to my rambling remarks. Allow me before I take my seat, to wish you, one and all, prosperity and happiness, and to drink your health with a heart brimful of gratitude for the many favors that have been showered by my professional brethren upon me."

—————:O:—————

Some Practical Points in Operating for Cataract.

By Dr. DE WEEKER, Paris. Translated by Dr. LITTON FORBES, late Clinical Assistant, London Ophthalmic Hospital.

In this lecture, gentlemen, I propose to touch on some points which may arise in your practice, and upon which it is well you should have clear notions. A question, for instance, may present

itself as to whether, if one eye only be attacked by cataract, it should be operated on, the sight of the other being good. In answer to this, I would say that no hard and fast rule can be laid down. You must consider the position of the patient in society; whether or no he has to work for his living, and whether or no he has passed his life in a great center of population. If he has to work, and if his business be in a great community—decidedly yes. I should say early, and not wait till he becomes blind. This remark applies with especial force to the cases of those who have to do with machinery, whose indistinct or monocular vision may be a source of extreme danger to themselves or others.

Again, another case: If the cataract of one eye be mature and, that of the other only partially so, what course should be pursued as regards operation? Well, my advice would be, especially with persons in easy circumstance, to operate on the one with as little delay as might be. Many persons are haunted by a nervous dread of blindness, and are especially grateful for the restoration of one eye. Besides, there are other reasons, which I will call moral ones. Many a man dreads above all things to have his correspondence answered or read by others, and the mental annoyance that such a necessity would expose your patient to should be almost sufficient of itself to enable you to decide.

Again, must a cataract be ripe? In my own practice, I look on this as a matter of indifference. I think, however, it is as well to wait until the individual has lost the power of reading with the affected eye before you operate upon it.

If both eyes are cataractous, is it prudent to operate on both at the same time? As a rule, I never hesitate to do so, unless I see some special reason to the contrary. If there be any such—as, for instance, anything not quite normal about the patient's eyes or health, or about your surroundings, or about the course your later operations have taken—then I would say, let a week intervene between your operations.

As a rule, no special preparation of a patient for operation, as used to be done in old days, is at all necessary. I seldom allow patients to lie in bed more than two days, but encourage them to go about as much as possible, taking all due precautions. I have from time to time been compelled to operate upon unfortunates from public institutions, and to send them a distance of eight or nine miles, immediately after the operation, with a single bandage on; nor can I say I have had any bad results from such practice. At the same time, it is one that you adopt only in dire necessity.

I now I come to an important matter; that is, the possible *accidents after operation*. I told you the other day that however skillful you may be as operators, or careful as surgeons, you will assuredly have cases from time to time of suppuration of the cornea and loss of the eye. Now in these cases it is often a question whether the suppuration comes from the iris or the cornea. Does

it come from a torn iritis, followed by suppuration, or is it from a keratitis? Jacobson taught a valuable lesson when he recommended the examination of the eye six or eight hours after operation. This was in order that we might see where the mischief really lay, instead of leaving matters during two three days to become worse, as the old surgeons did. While fully agreeing in principle with all that Jacobson has laid down on this subject, I think, nevertheless, that in practice we must not be in too great a hurry to examine the eye lately operated on. I change my bandages after some twelve hours, but, if it seems well, I do not examine the wound at so early a date. Above all, I do not allow the patient to *look down*, for this would tear open the recent wound, and conduce to hemorrhage. I am satisfied with a glance at the vitreous through the pupil, and if that is clear, that is enough.

And now let us state a general proposition, which is, that all accidents of suppuration after cataracts are by *infection*. I am accustomed to describe infection in these cases as of two sorts, namely, *immediate* and *mediate*.

And first as regards immediate infection. This variety does not depend upon the state of health or the constitution of the patient. Anyone is liable to it. It breaks out very quickly, some twelve hours or so after the operation. It invades the cornea, and too often leads to panophthalmitis. Its cause is probably a vitiated conjunctional secretion.

Mediate infection depends much more than the foregoing on the constitutional state of your patient. Its chief exciting cause, however, is a want of coaptation in the corneal wound. Lister's researches have pretty well established that the cause in such cases is the decomposed serosity from the wound, which becomes a source of infection. This want of tone in the tissues, resulting in the failure of coaptation of the lips of the wound, was met by the older surgeons by excessive tight bandaging; but this only made the evil worse, for thereby the various secretions were shut in, instead of being allowed to escape. Mediate infection generally makes its appearance forty-eight hours after operation. It does not cause pain to the patient. It works steadily and, so to say, silently, giving little evidence of its existence. It may, apparently, descend into the eye through the wound, and give rise to an ulcer in the vitreous, from which pus flows out of the eye, while the cornea is perfectly clear. Perhaps this fact may serve to explain a phenomenon which is remarkable enough, namely, that out of the thousands of iridectomies performed, scarcely one ever ends in suppuration; while of cataract operations, however skillfully performed, a certain number always fail from this cause. The reason is, perhaps, because, in the latter the capsule has been opened; moreover, the wound in iridectomy provokes a dispedesis of the vessels in its immediate neighborhood; whereas the wound in the capsule brings

the septic poison close to the ciliary body, and into a position from which it is with difficulty eliminated.

The secret of treatment in both these infections, will be found in prophylactic measures. Disinfect your hands, your instruments, the eyes of your patients, especially the infraorbital and supraorbital regions. You have seen me, as a rule, sponging all cases with a weak solution of carbolic acid before operation. This is equally necessary in the case of persons in good society, especially ladies, whose eyelids and brows we constantly find covered with cosmetics and other such filth. You will, of course, cleanse the corneal wound very carefully, and see that the parts are in good apposition, and are not torn open afresh by a too early examination. When iritis supervenes after an operation for cataract, it generally makes its appearance on the fourth or fifth day. At one time the cause of this accident used to be looked for in some bruising the iris had undergone, or in the presence of some cortical masses which had been left behind. The true reason, however, is that a change has taken place in the intraocular pressure, depending most probably on some entanglement of the iris in the wound. At times the iritis or iridochoroiditis takes a neuralgic character. This arises from a mechanical cause, and it is useless to treat it by therapeutics. It can only be cured by mechanical means, namely, by cutting into the wound and freeing the iris, if the exact seat of the entanglement can be found.

Among the operations which have to a certain extent established themselves in ophthalmology as occasionally useful, I would here mention the operation for the removal of the crystalline in its capsule. It is undoubtedly a meritorious operation, and may from time to time be resorted to. I have performed it sixty-six times, and can therefore, perhaps, form a just opinion as to its value. The great objection to this operation is that it scarcely admits of being performed without recourse being had to traction. Now I have already laid down that all methods into which traction entered were radically bad. This operation necessitates it very often, and therefore it stands condemned as a routine procedure. Moreover, be as skillful as you will, you are sure to have a certain number of cases in which the capsule will burst at the precise moment you are extracting the crystalline. Then much of the cortical substance remains behind, which you are obliged to extract with the curette, under less favorable circumstances than if you had used this instrument at first. If some good results have been obtained by the operation, they only, in my mind, go to show how marvelously tolerant the eye is of rough handling.

In conclusion, let me impress on your minds three important facts:

(1.) A good operation for cataract is shown by the easy exit of the lens. The old surgeons allowed it to be driven out of the wound by the mere pressure of the upper eyelid. We cannot quite

do that, for our section of the cornea represents a third, instead of a half, of the membrane, as theirs did. Still our close of pressure must be an infinitesimal one, the mere suspicion (loupeon) of a pressure.

(2.) Insure an easy exit of the lens in order to protect yourselves against the iris being strangulated. The more it has been pressed upon, the greater will be the difficulty of saving it.

(3.) As to the infections I have spoken of, all your efforts must be directed to check them at the commencement. For this purpose you must bring to bear all the new facts and discoveries which the modern practice of antiseptic surgery places at your disposal. I am no advocate for performing eye operations under spray. I look forward, however, in the future to our being able very much to diminish the number of suppurations after cataract operation by a more thorough knowledge of antiseptic methods.—*Western Lancet*.

/

————:o.————

THE TREATMENT OF DIPHTHERIA.—D. D. Hovell writes to the *Lancet*:—The late Mr. John Scott used to treat severe cases of cynanche with a “scavenger”—viz, calomel, jalap, and scammony, after which they usually got well. Looking at a diphtheritic throat one day, I said to myself, Why should I not give this patient a scavenger? I did so, and remarked that the subsequent course of the disease was certainly cut short. I have since adopted the plan, and invariably found that the same good results have followed; the tendency to fresh deposits has much diminished, and in many cases is wholly prevented. I can call to mind more than one case in which the attempt as a fresh deposit was clear, but very feeble. Unhappily I have seen a good deal of diphtheria at different times since its appearance in this country, about twenty-two years ago, and have treated it, on the whole not unsuccessfully, but it was about a year ago that the above circumstances almost accidentally forced the conviction on my mind that *elimination of the poison* ought to be the first object in treatment. How this elimination takes place through the bowels I know not, but diphtheria is a disease of blood poisoning, and there is no reason why the poison should not be eliminated through the bowels, any less or more than in enteric fever—in throat fever than in bowel fever. I cannot refuse the evidence of my experience, that since I have adopted the practice of purging at the outset the course of the disease has been invariably more favorable, nor the testimony of those who declare that the dejections thus produced are abominably offensive. At any rate, the practical effect of “the scavenger” recommends itself to my mind in a much higher degree than the scientific inaction of temporizing and waiting till the disease has run its course, however masterly such inaction may appear; or than the inferior, but by no means futile plan, of trying to neutralize

the effects of the poison. Invaluable as the scientific knowledge is, it ought not to stop short, nor rest content, without improvement in practice. Elimination, then, (1) through the bowels, (2) through the kidneys. Chlorate of potash drinks should be given frequently, incessantly. Where the nose is affected, the same solution or that of permanganate of potash should be drawn up frequently through the nostrils, so as thoroughly to cleanse them. When the patient cannot swallow, nutrient enemata should be given four times a day; not too frequently if they are to be retained. For this, nothing is better than Dr. Munk's mixture, a tumbler full of milk gruel, a new-laid egg, a tablespoonful of Brandy.—*Western Lancet*.

—:o:—

On the Biliary Secretion of the Dog with Reference to the Action of Cholagogues.

Dr. Will Rutherford, Professor of the Institutes of Medicine in the University of Edinburgh, has presented a report on this subject to the Scientific Grants Committee of the British Medical Association (*Brit. Med. Journ.*, Feb. 8, 1879), of which the following is the summary of result obtained.

1. In a curarized dog that has fasted eighteen hours, the secretion of bile is tolerably uniform during the first four or five hours after the commencement of the experiment, but falls slightly as a longer period elapses. Its composition remains constant.

2. Croton-oil is a hepatic stimulant of very feeble power. The high place assigned to it by Röhrig was probably the result of his imperfect method of experiment.

3. Podophyllin is a very powerful stimulant of the liver. During the increased secretion of bile, the percentage amount of the special bile solids is not diminished. If the dose be too large, the secretion of bile is not increased. It is a powerful intestinal irritant.

4. Aloes is a powerful hepatic stimulant. It renders the bile more watery, but at the same time increases the excretion of biliary matter by the liver.

5. Rhubarb is a certain, though not a powerful, hepatic stimulant. The bile secreted under its influence has the normal composition.

6. Senna is a hepatic stimulant of very feeble power. It renders the bile more watery.

7. Colchicum increases to a considerable extent the amount of biliary matter excreted by the liver, although it renders the bile more watery.

8. Taraxacum is a very feeble hepatic stimulant.

9. Scammony is a very feeble hepatic stimulant.
10. Gamboge is an intestinal, but not a hepatic, stimulant.
11. Castor-oil stimulates the intestinal glands, but not the liver.
12. Calomel stimulates the intestinal glands, but not the liver.
13. Euonymin is a powerful hepatic stimulant. It is not nearly so powerful an irritant of the intestine as podophyllin.
14. Sanguinarin is a powerful hepatic stimulant. It also stimulates the intestine, but not nearly so powerfully as podophyllin.
15. Iridin is a powerful hepatic stimulant. It also stimulates the intestine, but not so powerfully as podophyllin.
16. Leptandria is a hepatic stimulant of moderate power. It is a feeble intestinal stimulant.
17. Ipecacuan is a powerful hepatic stimulant. It increases slightly the secretion of intestinal mucus; but has no other stimulant effect on the intestine. The bile secreted under the influence of ipecacuan has the normal composition.
18. Colocynth is a powerful hepatic as well as intestinal stimulant. It renders the bile more watery, but increases the secretion of biliary matter.
19. Jalap is a powerful hepatic as well as intestinal stimulant.
20. Sodium-sulphate is a hepatic stimulant of considerable power. It also stimulates the intestinal glands.
21. Magnesium-sulphate is an intestinal but not a hepatic stimulant.
22. Potassium-sulphate is a hepatic and intestinal stimulant of considerable power. Its action on the liver is, however uncertain, probably owing to its sparing solubility.
23. Sodium-phosphate is a powerful hepatic, and a moderately powerful intestinal stimulant.
24. Rochelle salt is a feeble hepatic but a moderately powerful intestinal stimulant.
25. Ammonium-chloride stimulates the intestinal glands, but not the liver.
26. Dilute nitrohydrochloric acid is a hepatic stimulant of considerable power.
27. Mercuric chloride (corrosive sublimate) is a powerful hepatic stimulant, while it is a feeble intestinal stimulant. Although calomel is an intestinal but not a hepatic stimulant, excitement of the liver as well as of the intestinal glands results when mercuric chloride and calomel are administered together.
28. Calabar bean stimulates the liver, but not powerfully, unless it be given in very large doses.
29. Atropia-sulphate antagonizes the effect of Calabar bean on the liver, and thereby reduces the hypersecretion of bile produced by that substance. It does not, however, arrest the secretion of bile, and, when given alone, does not notably affect it.
30. Menispermmin does not stimulate the liver. It slightly stimulates the intestinal glands.

31. Baptisin is a hepatic and also an intestinal stimulant of considerable power.

32. Phytolaccin is a hepatic stimulant of considerable power. It also slightly stimulates the intestinal glands.

33. Acetate of lead, in large doses, somewhat diminishes the secretion of bile, probably by a direct action on the liver.

34. Ammonium-phosphate is a moderately powerful hepatic stimulant of the liver. It does not stimulate the intestinal glands.

35. Tannic acid does not affect the secretion of bile.

36. Hydrastin is a moderately powerful hepatic stimulant, and a feeble intestinal stimulant.

37. Juglandin is a moderately powerful hepatic and a mild intestinal stimulant.

38. Sodium-benzoate is a powerful hepatic stimulant. It is not an intestinal stimulant.

39. Ammonia-benzoate stimulates the liver, but not quite so powerfully as the sodium-salt of benzoic acid. It does not stimulate the intestinal glands.

40. Benzoic acid stimulates the liver, but, owing to its insolubility, its action is less rapid and much less powerful than that of its alkaline salts.

41. Sodium salicylate is a very powerful hepatic stimulant. It does not notably stimulate the intestinal glands.

42. Sodium-chloride is a very feeble hepatic stimulant.

43. Sodium-bicarbonate has scarcely any appreciable effect as a hepatic stimulant, even when given in very large doses.

44. Potassium-bicarbonate freely excites the liver, and that only when given in very large doses.

45. Potassium-iodide has no notable effect on the biliary secretion.

46. Sulphate of manganese does not excite the liver, though it is a powerful excitant of the intestinal glands.

47. Morphia has no appreciable effect on the secretion of bile, and does not prevent the stimulating effect of such a substance, as sodium-salicylate.

48. Hyoscyamus does not notably affect the biliary secretion, and does not interfere with the stimulating effect of such a substance as sodium-salicylate.

49. Pure diluted alcohol does not affect the biliary secretion.

50. Jaborandi is a very feeble hepatic stimulant.

All the above conclusions are based on experiments performed on the dog, and have no reference to any observations made on the human subject.—*Amer. Jour. Med. Sciences.*

—:O:—

FREE DISPENSARIES.—At the recent special meeting of the County Medical Society, held for the purpose of discussing the responsibility of the medical profession for the abuses of free medi-

cal services, one of the speakers related the case of an applicant at one of the dispensaries who demanded that he should receive attention before his regular turn, on the ground that he had a carriage waiting outside for him at the rate of a dollar an hour. Another told of a man, apparently in the most abject poverty, who was received as a free patient in the Manhattan Eye and Ear Hospital, and, while an inmate of the institution, died from an attack of pneumonia; yet when his clothing was examined after his death, the sum of fifteen hundred dollars was found in his pockets.—*Boston Medical & Surgical Journal*.

—:o:—

The Adulteration of Drugs.

“Several mills in New England, and probably many elsewhere, are now engaged in grinding white stone into a fine powder, for purposes of adulteration. At some of these mills they grind three grades—soda grade, sugar grade, and flour grade. I am told that thousands of tons of it have been ground in one town of Massachusetts. It sells for about half a cent a pound. Flour has been adulterated in England, and probably here, with plaster-of-Paris, bone dust, sand, clay, chalk, and other articles. I am told that large quantities of damaged and unwholesome grain is ground in with flour, particularly with that kind called Graham flour. (To detect adulterations of flour, see *Sanitarian*, November, 1877.) Certainly hundreds, and probably thousands of barrels of ‘terra alba,’ or white earth, are sold in our cities every year, to be mixed with sugars in confectionery and other white substances. I am told by an eminent physician that this tends to produce stone, kidney complaints, and various diseases of the stomach. A Boston chemist tells me that he has found seventy-five per cent. of ‘terra alba’ in what was sold as cream of tartar used for cooking. A large New York house sells three grades of cream of tartar. A Boston chemist recently analyzed a sample of the best grade, and found fifty per cent. of ‘terra alba’ in that. Much of our confectionery contains thirty-three per cent. or more of ‘terra alba.’ The coloring matter of confectionery frequently contains lead, mercury, arsenic, and copper. Baking powders are widely sold which contain a large percentage of ‘terra alba’ and alum.—*Med. and Sur. Reporter*.

—:o:—

‘SCARLET FEVER AT NEWPORT, R. I.—In view of the prevalence of scarlet fever at Newport, R. I., Dr. H. R. Storer has called the attention of the board of aldermen to their neglect of sanitary precaution in that town. He says the board has refused to transfer its powers to a competent board of health; children of infected families are allowed to attend public and private schools; open funerals are permitted, and alleged defects in the construction of the sewers are not corrected —*Boston Med. & Surg. Jour.*

THE BOARD OF HEALTH RESOLUTIONS.—The following resolutions have been passed by the Philadelphia Board of Health:—

Resolved, That hereafter, when death has resulted from a contagious disease, the Board of Health require that the cause shall be mentioned in the published death notice.

Resolved, That the public should avoid unnecessary attendance upon the funerals of those dead from contagious diseases.

Resolved, That among the diseases especially calling for this caution are, scarlet fever, measles, whooping cough, diphtheria, and smallpox or varioloid.

Resolved, That wherever possible, air-tight burial cases be used, and if such cannot be obtained, the funeral be strictly private.

————:o:————

SYPHILITIC CONSUMPTION.—Prof. Schnitzter, of Vienna, in the *Wiener Med. Presse* has called attention to the much greater frequency of this disease than has been hitherto supposed. The symptoms strictly follow those of ordinary tuberculosis, and the diagnosis is often far from easy. The existence of syphilitic symptoms in any other organ or part in a consumptive should at once lead to the suspicion that the phthisis is of like origin; so also, should the confession of previous venereal infection. The recognition of the character of the disease is all important, as specific treatment in the earlier stages will generally effect a prompt cure. *Med. and Surg. Reporter*.

————:o:————

Chlor-Acetic Acid in Cancer.

EDITOR MEDICAL BRIEF:—Although I had frequently read accounts of the value of acetic acid in cancer, it was not until the spring of 1873, that I was personally impressed with its value. Being in Paris, I visited the eye clinic of DeWecker, the celebrated oculist of that city. Among many objects of interest he called our attention to a case of epithelioma of the forehead, which was rapidly disappearing under the use of acetic acid, pricked into the nodules by means of glass rods with fine points. He spoke in a very impressive manner as to the value of this treatment, and of course I did not forget it. I have used it in the same way, and successfully in the epitheliomata, and it may have a more curative effect in other varieties than is now thought to be the case. But good as the above method is I have ascertained by testing, that chlor-acetic acid is much better, more powerful in its action, and yet is easily controlled. The acid is probably better known to aurists, it being used to apply to aural polypi, being very effective, and its action being at once arrested by syringing water into the meatus. Its action here and my knowledge of the value of acetic

acid in cancer suggested the use of the other and stronger agent in cancer, and from repeated trials I can conscientiously recommend it to the profession in all cases where a destruction of such is desirable by other means than the knife. It can be applied in the crystal form, when the growth is an external one, and just enough water may be added to render it soluble, and then injected into the tissues. I usually apply the chlor-acetic once every three or four days while destroying the growth, and the strongest acetic acid about twice a day. I am also of the opinion that some incurable cases may be mitigated, and the lethal termination deferred by its use.—*Medical Brief.* S. J. BUMSTEAD, M. D.

Decatur, Ill., April 3d, 1879.

—:O:—

Editorial.

Employment of Female Assistant Physicians, in the Female Wards of Insane Asylums.

A bill has been introduced in the Assembly of the State of New York, requiring the trustees of the four State asylums for the insane "to employ one or more competent and well educated female physicians to have charge of the female patients of said asylum, under the direction of the medical superintendents of the several asylums, as in the case of the other or male assistant physicians, and to take the place of such male assistant physician or physicians in the wards of female patients."

The exception taken to this bill by physicians in Buffalo is embraced in the following resolutions passed by the Buffalo Medical Association, with the reasons therefor:

Resolved, That this Association emphatically protest against the adoption of any such enactment for the reasons:

First. That it has not been shown that male assistant physicians are in any way incompetent to deal with the various maladies incident to insanity in women.

Second. That female physicians by virtue of their sex and the peculiar conditions incident thereto, would at times be incompetent to assume the duties of the position.

Third. That a mixed Medical Staff would be wholly subversive of good discipline and the proper and scientific management of institutions for the Insane where both sexes are treated, and that the Superintendents and Managers of the State Insane Asylums are, in our opinion, fully competent to suggest and select those who are to act as Assistants.

Fourth. The impropriety, unfairness and danger of class legislation in professional, scientific or religious associations or interests.

Resolved—That this Association earnestly requests the members of the Legis-

lature from the City of Buffalo and the County of Erie to do all in their power to defeat any such unwise and revolutionary measure.

Dr. H. B. Wilbur, in a letter to the Editor of the *Syracuse Courier*, answering objections to this bill, says of these resolutions :

"Inasmuch as one of the active members of the Association is a co-trustee with Dr. Gray, in the new Insane Asylum at Buffalo, and two of the others bear the same name, as one of his Medical Assistants, perhaps personal influences were unconsciously operative in the passage of the resolutions. At all events, the somewhat presumptuous and bigoted opinions they utter may be fairly offset by the abundant approval of the measure at the hands of medical men of equal standing in the profession, but with more liberal views."

And he also uses the following infamously scandalous argument in favor of the bill :

"In some of the lunatic wards of our County Poor-houses male attendants have had the charge and care of the female patients; have had the keys that gave access to their rooms; insane women have given birth to children, begotten in the house. So it is said, though no mention is made of it in the reports of the Commissioner of Lunacy.

"If this were true, would there be any impropriety in passing a law to require the managers of such institutions to employ female attendants, in the care of female patients?"

Does Dr. Wilbur soberly propose to intimate that the bastard children of our insane pauper women can in any way be traced to the male attendants in Asylums? Does he not well know that these children come by mail (male)—grow spontaneously—spring up from behind fences or other ambuscade, and are in no way to be expected from common causes? For a physician to intimate any knowledge of *where* or *how* these pauper children are begotten is so absurd as to require no reply.

In his letter he seems to trace our Association resolutions to Utica as the chief source of our inspiration, and we have no objection to the alleged source, but, for the benefit of our old friend Dr. Wilbur, we assure him the inspiration of the fourth reason was direct from God himself, through the editor of this journal; and though he *has had* a nephew in the Utica Asylum, neither the young Doctor or Utica Asylum ever urged this objection to legislative action in this connection.

Women as Doctors, possibly as Assembly(women and Senatoresses (?) may yet be found to be important as a general matter of economy and reform. We personally favor the women, and wonder how—when the choice was left wholly to Superintendents of Asylums—they should have so strangely neglected their privileges. Of course female physicians are a necessity in female wards, and quite likely would be found even better as assistants, and *possibly as Superintendents* in all public institutions.

The provision for and care of the insane in the State of New York is a subject open for consideration, and we expect to see the present system undergo important changes.

Buffalo College of Rational Medicine.

The key note of an enormous horn, "*Educated in both Schools*," broken, or about to be broken!! At the small end of the horn, is being *screached* out upon the similia similibus curantur platform, (stolen from those who built it)—educated in the Buffalo Medical College of *Ra-tion-al* (?) Medicine. The only reply yet heard at the opposite end of this gigantic horn is the astonished response, *Ra-tion-al!!!*

:O:

FARE TO THE AMERICAN MEDICAL ASSOCIATION.—For the accommodation of delegates and their families the Great Southern Mail and Kennesaw Route has arranged to place on sale the 26th of April to the 4th of May, inclusive, tickets at reduced rates to Atlanta, Ga., and return, and good until the 20th of May. A Pullman sleeper for delegates from Philadelphia will be placed in position at Broad Street depot (P. W. and B. R. R.) at nine o'clock, P. M., on the 29th of April, at the same hour each evening during the sale of tickets, so that they may avoid loss of rest in waiting for the train, which leaves at one o'clock, A. M. At Washington an additional sleeper will be attached, which will afford ample accommodation. The varied, beautiful, and romantic scenery along this route is unequaled by that along any other, running to the South. Traversing what were the battle fields of Manassas and Bull Run, the train sweeps past the Peaks of Otter, courses through the Roanoke Valley, crosses the Blue Ridge and Alleghany Mountains, winds along the banks of the Tennessee River, and runs in full view of the picturesque mountain ranges of North Georgia, and delivers the passenger in Atlanta, the "Gate City of the South," in less than thirty hours from Washington.

The attention of delegates from Washington, and all points north and east thereof, is called to the requirements necessary to secure reduced rates: application must be made to Dr. W. B. Atkinson, Permanent Secretary of the American Medical Association, No. 1400 Pine Street, Philadelphia, (including stamp), who will furnish certificates, on presentation of which at the various points mentioned the tickets can be purchased to Atlanta and return.

:O:

The Faculty of the Chicago Medical College announce that Professor EDWARD W. JENKS, M. D., of the Detroit Medical College, has accepted an appointment to the Chair of Medical and Surgical Diseases of Women and Clinical Gynecology. Dr. Jenks has already acquired a national reputation so prominent, in this department, as a teacher and operator, that it is unnecessary to speak of the advantages which are thus secured to the College. Dr. Jenks is to change his residence and field of labor to that city at an early day.

THE SESSION OF THE AMERICAN MEDICAL ASSOCIATION opens at 10 A. M., Tuesday, May 6th, at Atlanta, Ga., and continues four days. An interesting and instructive meeting may be expected. The National Medical Conventions that gather at Atlanta in May, open by the Convention of Medical Colleges that is called to assemble in the State Senate Chamber of that city, Friday morning, May 2, at 10 A. M. This is followed by the third annual meeting of the American Medical College Association at the same place, at 10 A. M., Saturday, May 3. The Convention of American Medical Editors meets at 8 A. M on Monday, May 5.

————:O:————

Dr. ELSBERG, of 614 Fifth Avenue, New York, is preparing for the American Laryngological Association a report of what has been published in this country on Laryngology and allied subjects; and will appreciate it as a favor if physicians will inform him of the title and publication of everything written on the subject of the Throat, Voice, etc. No matter how unimportant it may seem, please mention it in your answer.

————:O:————

A contribution to the Hæmatinic properties of Dialyzed Iron, by ROBERT AMORY, M. D., of Longwood, Mass., amounts to a demonstration of the Hæmatinic properties of Iron, and has attracted much attention. He writes to Wyeth & Brother as follows:

LONGWOOD, Mass., April 9th, 1879.

Messrs. WYETH & BRO.,

Dear Sirs:—In answer to your inquiry as contained in your note of yesterday, I will say that in the experiments which are detailed in the Boston Medical and Surgical Journal for April 3d, I used only the solution of Dialyzed Iron manufactured by your firm.

Yours, Respectfully,
ROB'T AMORY.



Death of Doctor Thomas Waddel of Toledo, Ohio.

On Sunday evening, March 9th, Dr. THOMAS WADDEL died at his late residence, No. 649 Huron Street. Cut down in the midst of an active, useful life, the bereavement is made doubly so by its suddenness; scarcely was it known that he was sick before his death occurred. On Saturday morning he visited his patients as usual; on Sunday night he passed beyond the cares of earth to reap the reward of one who had well borne his part in the struggles and trials of life.

On Friday he had a chill but was able to attend to a case of labor in the afternoon, and though suffering with fever he terminated the protracted case

with forceps. Saturday morning he made his calls but at noon was obliged to take to his bed, which he never left. * * * * *

We can give but a brief outline of his life and work. Those who knew him best feel that in his death they have sustained a loss which cannot be repaired and that a life full of promise, of usefulness and brilliant success has been brought to a premature close. At the time of his death his age was 35 years, 4 months and 26 days, having been born in Canada on the 13th of October, 1843. He came to the States in 1865, entering the Medical University of Buffalo. In 1870 he attended the lectures in the University of Wooster, Cleveland, graduating with the highest honors at that institution in 1871. He went to Toledo near the close of 1873, and during his residence there took rank among the most prominent physicians of the city, and met with eminent success in his profession. He was lecturer on Gynecology, in the Toledo School of Medicine; was a member of the medical staff of the St. Vincent Hospital; a member of the Board of Health, and also of the American, State, Northwestern Ohio and Toledo Medical Associations.—*Toledo Med. & Surg. Journal.*

Books Reviewed.

Clinical Diagnosis. A Hand-book for Students and Practitioners of Medicine. Edited by JAMES FINLAYSON, M. D., with eighty-five illustrations. Philadelphia: Henry C. Lea, 1878.

We rarely recommend Hand-books, now so much in fashion. It seems to us that well-informed Physicians should be at least familiar with the Hand-book standard of Medicine, but in looking over the pages of this book, we are obliged to think many kind things of it, and to say that the student and physician will find chapters condensed, carefully written, comprehensive and complete, thus saving the time and labor required in the study of the more extensive works upon practical medicine.

The following is the list of contributors and their subjects, showing to our readers the standing of the Authors whose views are embodied in the work.

W. T. GAIRDNER, M. D., Professor of the Practice of Physic in the University of Glasgow: Physician to the Glasgow Western Infirmary, &c.

On the Physiognomy of Disease.

JAMES FINLAYSON, M. D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, &c.

On Case-Taking, Family History, &c.

On Symptoms of Disorder in the various Systems.

(Except in so far as specified below.)

WILLIAM STEPHENSON, M. D., Regius Professor of Midwifery in the University of Aberdeen.

On Disorders of the Female Organs.

ALEXANDER ROBERTSON, M. D., Physician and Superintendent of the Town's Hospital and City Parochial Asylum, Glasgow.

On Insanity.

SAMSON GEMMEL, M. B., Assistant to the Professor of the Practice of Physic in the University of Glasgow, and physician to the Dispensary of the Glasgow Western Infirmary.

On the Sphygmograph.

On the Physical Examination of the Chest and Abdomen.

JOSEPH COATS, M. D., Pathologist and Lecturer on Pathology in the Glasgow Western Infirmary, and also Physician to the Dispensary and its Throat Department.

On the Examination of the Fauces, Larynx, and Nares.

On the Method of Performing Post-Mortem Examinations.

Lectures on Bright's Disease of the Kidneys, delivered at the School of Medicine of Paris. By J. M. CHARCOT, Professor in the Faculty of Medicine of Paris; Physician to the Salpêtrière; Member of the Academy of Medicine; of the Clinical Society of London; of the Clinical Society of Buda-Pesth; of the Society of Natural Sciences, Brussels; President of the Anatomical Society; former Vice-President of the Society of Biology, &c., &c. Collected and published by Drs. BOURNEVILLE and SEVESTRE, editors of the *Progrès Médical* and translated, with the permission of the author, by HENRY B. MILLARD, M. D., A. M. New York: Wm. Wood & Co., 27 Great Jones St. 1878. H. H. Otis.

The author of this book has given the medical Profession a clear, concise and practical description of the pathology and histology of Bright's disease, not confounding it with any other disorder of the kidneys. He has also given colored illustrations of morbid conditions which augment its interest and value. He points out the clinical phenomena which aid in the recognition of amyloid degeneration of the kidney in the following words:

"It may be said that there are no symptoms which belong to it specifically. The phenomena associated with it are sometimes those of parenchymatous, and sometimes those of interstitial nephritis; sometimes, finally, the two classes of symptoms are found mingled together. Nothing, however, is easier, generally, than to establish the diagnosis, but this is founded almost exclusively upon extrinsic consideration.

"The existence of an habitual albuminuria and the persistence of a certain

œdema are sufficient in this case to enable us to recognize that we have to deal with a renal lesion, but only the presence of phenomena belonging to the amyloid diathesis reveals the special nature of the kidney affection. Thus, the patient is phthisical, suffers with prolonged suppuration or syphilitic cachexia. We recognize, besides, the existence of a considerable swelling of the liver and spleen; finally, the patient suffers from unmanageable diarrhœa, of a watery and painless character, proceeding from the amyloid affection of the arteries of the small intestines. When these conditions exist, it is easy to recognize and affirm the existence of amyloid degeneration of the kidney.

"For the rest, we have not up to the present time succeeded in recognizing distinctly, how in such a case, the parenchymatous or interstitial alterations of the kidney depend upon the amyloid alteration of the arteries, no more than we have in establishing the physiology of the symptoms which depend upon these alterations. These are questions the solution of which is reserved for the future."

The whole subject matter of the book is of too much importance and interest to be neglected by the ambitious, thoughtful physician, and no author can present the subject more concisely, scientifically and practically, though nothing is said of its treatment other than what is connected with its pathology and histology.

A Manual for the Practice of Surgery. By THOMAS BRYANT, F. R. C. S., Surgeon to and Lecturer on Surgery at Guy's Hospital Memb. Correspond. de la Société de Chirurgie de Paris, with six hundred and seventy-two illustrations. Second American from the *Third Revised and Enlarged English Edition*. Philadelphia: Henry C. Lea, 1879.

Our author makes the following quotations as a motto, and it is so apt and suggestive that we quote it entire, since its scope and spirit is so thoroughly carried into the text of the volume and so beautifully illustrated in its pages:

"Only the association of medicine with surgery forms the perfect physician. The physician who is deficient in the knowledge of one of these branches resembles a bird with but one wing." *Art of Life (Ayur Vede)*, early Sanscrit, first century of Christian era.

"Surgery consists in curing disease rather than in the removal of it by mechanical means. But so differently do most think upon this subject that a surgeon who performs most operations and gives most pain is commonly thought the best."—*John Hunter, Ms. Lectures*, 1787.

Our author has very modestly called his work a "*Manual*" for the Practice of Surgery, but it is a comprehensive, condensed, beautifully illustrated work upon practical surgery of about 1,000 pages, adapted to the wants of the student, and at the same time a book of reference for the practical surgeon, of unsurpassed value, and every physician and surgeon will act wisely by adding it to his library. It has points of great interest too numerous for mention.

Notes on the Treatment of Skin Diseases.—By ROBERT LIVEING, A. M. and M. D. Cantab. F. R. C. P. Lond. Lately Physician and Lecturer to Middlesex Hospital and Physician in charge of the Skin Department. Fourth Edition, revised and enlarged. New York: Wm. Wood & Co., Publishers., 27 Great Jones St. 1878. H. H. Otis.

The author's preface gives the best description of this little work, and we copy it entire as showing its scope and object. It admirably meets the wants of many practitioners:

"These short notes on the Etiology and Treatment of Skin Diseases were prepared with a view to their private circulation amongst the students of my class in Cutaneous Medicine at the Middlesex Hospital. I have, however, published them at the request of some of my friends and former pupils. The Notes consist of a few general remarks on the Etiology, Diagnosis, Treatment, and Classification of Skin Diseases, followed by some short sketches on the nature, history, and best modes of dealing with ordinary affections. To this are added a Glossary of Terms in common use, and numerous Formulæ derived chiefly from the prescriptions of Hebra, Anderson, and the Pharmacopœia of the Skin Hospital, Blackfriars."

A Manual of Physical Diagnosis. By FRANCES DELAFIELD, M. D., and CHARLES F. STILLMAN, M. D. New York: Wm. Wood & Co.

This is truly a Manual of Physical Diagnosis, as the title implies. It would seem invaluable to the clinical teacher, and will be a great help to the student who is trying to obtain any distinct understanding of Physical Diagnosis. It is bound interleaved so that it can be taken into the wards of a hospital or into a clinic room and used as a note-book. The superimposed plates show the location and relations of internal organs, and of themselves alone make the manual *indispensable* to the students attending our various medical colleges. And I may be allowed to say that physicians of considerable experience will be benefited and entertained by the very beautiful superimposed plate illustrations of the subject. For a book of its kind we regard it unequalled.

————:o:————

Books Received.

An Atlas of Human Anatomy, illustrating most of the Ordinary Dissections, and many not usually practised by the Student, accompanied by an Explanatory Text. By Riekman John Godlee, M. S., F. R. C. S., Fellow of University College, &c. Philadelphia: Lindsay & Blackiston.

Essays on Surgical Anatomy and Surgery: Comprising an Essay upon the Surgical Anatomy of the Common, External and Internal Carotid Arteries; an Essay upon the Surgical Anatomy and History of the Innominate and

Subclairen Arteries; an Essay upon the Surgical Anatomy of the Tibio-Tarsal region; an Essay upon the Surgical Anatomy of the Ablurator Artery, and Notes upon the Surgical Anatomy of the Hip joint. By John A. Wyeth, M. D., (University of Louisville). New York: Wm. Wood & Co. Buffalo; J. H. Matteson. pp. 262.

Diphtheria; its Nature and Treatment. Mackenzie. Philadelphia: Lindsay & Blackiston.

A Practical Treatise on Surgical Diagnosis. Designed as a Manual for Practitioners and Students. By Ambrose L. Ranney, A. M., Adjunct Professor of Anatomy and Lecturer on Minor Surgery in the Medical Department of the University of New York. New York: Wm. Wood & Co. Buffalo: Peter Paul & Bro. pp. 375.

The Achievements of Stanley and other African Explorers. By Hon. J. T. Headley. Illustrated. Philadelphia: Hubbard Bros. pp. 605.

A Guide to the Qualitative and Quantitative Analysis of the Urine. Designed for Physicians, Chemists and Pharmacists. By Dr. Neubauer, Professor, Chief of the Agricultural-Chemical Laboratory and Docent in the Chemical Laboratory in Wiesbaden, and Dr. J. Vogel, Professor of Medicine in the University at Halle; with a Preface by Prof. Dr. Fresenius. Translated from the Seventh Enlarged and Revised German Edition. By Elbridge G. Cutter, M. D., Physician to Out Patients at the Massachusetts General Hospital, Pathologist at the Boston City Hospital, and Assistant in Pathology in the Medical School of Howard University. Revised by Edward S. Wood, M. D., Professor of Chemistry in the Medical School of Howard University. New York: Wm. Wood & Co. Buffalo: J. H. Matteson. pp. 551.

Chemistry: General, Medical and Pharmaceutical; including the Chemistry of the U. S. Pharmacopœia; A Manual on the General Principles of the Science and their Applications in Medicine and Pharmacy. By John Attfield, M. A. and Ph. D. of the University of Tübingen; Member of the Councils of the Institute of Chemistry of Great Britain and Ireland, and (lately) of the Chemical School of London, etc., etc. Eight Edition. Revised by the Author. Philadelphia: Henry C. Lea. Buffalo: T. H. Butler. pp. 687.

On Diseases of the Abdomen: comprising those of the Stomach and other parts of the Alimentary Canal, Esophagus, Cæcum, Intestines and Peritoneum. By S. O. Habershon, London; Fellow of the Royal College of Physicians, etc., etc., with Illustrations. Second American from the Third Enlarged and Revised English Edition. Philadelphia: Henry C. Lea. Buffalo: T. H. Butler. pp. 554.

Epitome of Skin Diseases, with Formule for Students and Practitioners. By Tilbury Fox, M. D., F. R. C. P., Physician to the Department of Skin Diseases in University College Hospital, and T. C. Fox, M. B. A. (Cantab.), Physician to Saint George's and Saint James Dispensary. Second American Edition. Philadelphia: Henry C. Lea. Buffalo: T. H. Butler. pp. 216.

A Clinical Treatise on Diseases of the Liver. By Dr. Fried. Theo. Frerichs, Professor of Clinical Medicine in the University of Berlin, &c.; in three volumes; Vol. 2. Translated by Charles Murchison, M. D., F. R. C. P., Physician to the London Fever Hospital, &c., &c. New York: Wm. Wood & Co. pp. 228.

The Principles and Practice of Gynæchology. By Thomas Addis Emmet, M. D., Surgeon to the Woman's Hospital of the State of New York, &c. With one hundred and thirty Illustrations. Philadelphia: Henry C. Lea. Buffalo: T. H. Butler. pp. 855.

A Manual of Examination of the Eyes. A Course of Lectures Delivered at the "E'cole Pratique." By E. Landolt, Director-Adjoint of the Ophthalmological Laboratory at the Sorbonne, Paris. Translated. By Swan M. Burnett, M. D., Lecturer on Ophthalmology and Otology in the Medical Department of the University of Georgetown, &c. Philadelphia: D. C. Brinton. pp. 312.

A Treatise on the Diseases of Infancy and Childhood. By J. Lewis Smith, M. D., Clinical Professor of Diseases of Children in Bellevue Hospital Clinical College. With Illustrations. Philadelphia: Henry C. Lea. Buffalo: Theo. H. Butler. pp. 758.

—————:o:—————

Pamphlets Received.

Conclusions from the study of one hundred and twenty-five cases of Writer's Cramp and allied affections. By George M. Beard, M. D., New York.

On the Permanent Removal of the Hair by Electricity. By George Henry Fox, A. M., M. D. New York.

Ophthalmia Neonatorum. By Richard H. Lewis, M. D. Raleigh, N. C.

How shall the Degree of Doctor of Medicine be Conferred? By E. Fletcher Ingalls, M. D., Rush Medical College, Chicago, Ill.

Ringworm in Public Institutions. By John V. Shoemaker, A. M. Philadelphia, Pa.

Valedictory Address to the Graduating Class of Jefferson Medical College, at the forty-fourth Annual Commencement. By J. Aitken Meigs, M. D. Philadelphia, Pa.

Opium as a Tonic and Alterative; and Hypodermic Use, in the Debility and Amanrosis, sometimes consequent upon Onanism. By B. A. Pope, M. D. New Orleans.

Transactions of the Detroit Medical and Library Association. April, 1876.

Circulars for Information of the Bureau of Education. Nov. 1, 1879. Training Schools for Nurses.

Supplementary Rectal Alimentation, and especially by Defibrinated Blood, as applicable to a large range of cases in which Nutritive Enemata have not heretofore been employed. By Andrew H. Smith, M. D., Physician to St. Luke's Hospital, New York.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

JUNE, 1879.

NO. 11.

Original Communications.

—:O:—

ART. I.—*Malignancy in Tumors* By P. W. VAN PEYMA, M. D.

The term malignancy, as applied to tumors, is understood as denoting a tendency to spread rapidly and to recur after removal.

It seems to be a quite generally accepted belief, that the boundary lines between benign and malignant growths are sharply drawn and well defined; that, either by the microscope or otherwise, an expert should be able, invariably, to assign to one of the two classes any given pathological growth.

It will be the purpose of this paper to attempt the refutation of this opinion. To endeavor to prove a gradual transition from the benign to the malignant, and conversely; at the same time to show why it is, that, on the one hand, the carcinomatous and sarcomatous growths are so very malignant, while, on the other, the Lipomata and others are scarcely at all so.

The accomplishment of this purpose will necessitate a study of the histological characteristics of the various tumors; and we will therefore devote a few words to this part of our subject.

A simple minute mass of protoplasm, without either nucleus or

cell wall, but capable of independent life, is, according to the present view, acknowledged as a cell. But a typical cell, is one possessed of a cell wall or membrane, a nucleus and nucleolus.

According to this definition the human ovum is a typical cell; its vitelline membrane corresponding to the cell wall; the vitellus to cell contents; the germinal vesicle to the nucleus, and the germinal spot to the nucleolus. One of the most marvelous phenomena of nature, is the development of the human body from this single, microscopical cell. The accomplishment of this almost limitless development is the result of segmentation. The single original cell is multiplied into millions. These, during the earliest embryonic life, resemble each other so closely as to be indistinguishable and are called embryonic cells, or, because of their apparent want of any determined future, indifferent cells. Soon, however this similarity gives way to heterogeneity. Of the cells, at first so similar, one elongates to become fusiform; another undergoes corrugation, becoming stellate, &c., &c.

Thus do the indifferent or embryonic cells develop into the cells of epithelium, connective tissue, bone, cartilage, muscle and nerve. This proceeding is termed the process of differentiation.

The cells during early embryonic life arrange themselves into three germinal layers; the middle, termed the hæmoblast or intermediary nutritive apparatus, is intended for the blood vessels. Of the external, called the neuroblasts, and properly the organopoietic, the lower layer furnishes the organs of respiration and digestion; while the upper is the foundation for the organs of motion and sensation. This is as far as the course of the various cells has been definitely and positively followed. Of the various cells of the body, the ones of special interest to us in this connection, are those of the connective tissue and the epithelium; and it will be noticed that they thus early have separate sources; the connective tissue from the middle, the epithelial from the external. This fact seems to argue a wide difference between them.

On the other hand, they are found in most intimate contact throughout the developed body. These two facts, seemingly pointing in opposite directions, have been variously interpreted, and given rise to considerable discussion amongst pathologists.

The main question being, whether epithelium invariably and necessarily arises from epithelium, or, whether it may not and does not occasionally arise from connective tissue cells. The bearing of this question will be more apparent when we come to compare and contrast Carcinoma with Sarcoma.

The next subject requiring consideration is contained in the proposition that normal or healthy growth is the type of the pathological. This is a subject which admits of wide and interesting elaboration, but we must content ourselves with simply pointing out the relation existing between tumors and the normal tissues.

Each tumor has its normal prototype. Of the various formed connective tissues, bone is represented by Osteoma; cartilage by Enchondroma; tendon by Fibroma. Of the higher tissues the Myoma corresponds to muscle; Neuroma to nerve, &c. The unformed connective tissue, that which has not developed into the formed, such as bone, cartilage, &c., is represented by the Sarcoma. And lastly, Epithelium is the prototype of Cancer or Carcinoma.

The difference then between Sarcoma and Carcinoma, is, that they are pathological imitations of different tissues. It is true, that some pathologists have claimed an occasional origin of Cancer from connective tissue; and there is still some reason for thinking that epithelium may possibly, in some rare instances, arise from connective tissue cells. But the belief in the radical difference of the two growths is rapidly gaining ground, and the view just given is the one generally accepted.

Having reviewed the origin of several of the tissues and their relation to the various pathological growths, we turn now to a consideration of the histological appearances of the two pathological new formations which most interest us in this connection, viz: Sarcoma and Cancer.

But before proceeding to this, we must bear in mind the histology of their physiological prototypes,—the connective tissue and epithelium. We recall then, as regards the epithelium, that there are several varieties; such as the pavement, cylindrical or conoidal, &c. Also that it is generally in very intimate relation to the connective tissue, especially is this the case in glandular tissues. Of the connective tissue cells, although many are described, the

two principal varieties are the stable or fixed, and the movable or wandering. This latter variety cannot be distinguished from the leucocyt or white blood corpuscles, and undoubtedly has its origin in the blood, passing through the vessel wall by a process termed migration. The stable connective tissue cell presents many varieties, being often spindle-shaped, occasionally stellate, and so on. The microscopical appearance of Osteoma is very similar to that of bone; a Neuroma resembles nerve tissue, &c.

Sarcoma being a pathological growth of connective tissue origin and type, we find several varieties corresponding to the several kinds of connective tissue cells. The following varieties are usually mentioned—the small round celled, the spindle celled, both large and small, the myeloid, a variety in which the cell before dividing enlarges greatly and becomes multinucleated, and lastly, where the tendency to become spindle shaped is carried to the extreme, and regular fibres are formed, we have the Fibroma, whose type is the formed connective tissue, as, for example, Tendon. The cells of Sarcoma are usually arranged in rows or layers between intercellular matter. This intercellular material is “rarely pure connective tissue,” but for the most part contains a tolerably large quantity of albuminous,* caseinous or mucinous elements. It may be either “homogenous granular or fibrillar.”*

As to the origin of Cancer, I assume that it is invariably an epithelial growth; classing the so-called “connective tissue Cancer” of Wagner with the Sarcomata. Cancer “proceeds from the upper and lower germinal layers, and therefore belongs to the series of new formations of true epithelium.”† The opponents of this view, which is that of Thiersch, “hold that the most different tissues are not alone produced by the cells of the ovum, but that this capacity is enjoyed by all, or indeed by most, young cells, especially granulation cells arising from connective tissue; and the colorless blood corpuscles. They therefore seek the demonstration of epithelial or epithelioma formation in parts of organs which contain no epithelium denoid from the upper or lower germinal layer.”‡

* Wagner, General Pathology. Page 430.

† Wagner, General Pathology. Page 478.

‡ Wagner, Page 486.

In comparing cancer with epithelium, we must make liberal allowance for the fact that in all pathological growths there is a manifest want of perfection; the growth is too rapid to even approximate, in many instances, the normal perfection. In the words of Rindfleisch, "the entire process makes the impression of an over hasty consumption of capital, where the judicious use of the interest would have given a far better result."

"It is anything else than a tissue of ideal quality. The cells instead of being uniform, vary greatly in shape and character, many of them have grown so rapidly that division or segmentation has failed to keep pace with it; and the result is the large multi-nucleated, myeloid or giant cell. Again others degenerate very early, their breaking down resulting in the free nuclei, nearly invariably present."

As to the character of cancer cells, I quote also from Green. "The cells are characterized by their large size, by the diversity of their forms, and by the magnitude and prominence of their nuclei and nucleoli. In size they vary from $\frac{1}{600}$ to $\frac{1}{1500}$ of an inch in diameter, the majority being about five times as large as a red blood corpuscle. They are round, oval, fusiform, polygonal—exhibiting in short every diversity of outline. * * * * The nuclei, which are large and prominent, are round or oval in shape, and contain one or more nucleoli. The nuclei are perhaps most frequently single; two, however, are frequently met with, and in the softer and more rapidly growing cancers, they may be much more numerous. The cells rapidly undergo retrogressive changes, hence they usually contain molecular fat. They are many times exceedingly destructible, so that sometimes more free nuclei than cells are visible. Cells precisely similar to these are met with in other morbid growths, and also in normal tissues. *There is thus no specific "cancer cells."* It is the general character of the cells, together with their mode of distribution in the meshes of a fibroid stroma, that determines the nature of the growth to which they belong. "The appearance presented by these cells grouped within the alveoli of the cancer sometimes closely simulates in the earlier stages of growth that of simple adenoma,"* only here the cells

* Green's Pathology and Morbid Anatomy. Page 143, 144.

are less irregular and more like the normal. It will be noticed that the quotation denies explicitly the existence of a *cancer cell*, that is, a cell characteristic of this growth. On the contrary it is exactly this want of any thing characteristic; the great variety of shape and size and condition, which is to any extent peculiar. Add to this the arrangement in alveoli, formed of connective or fibrous tissue, and we have all that is in any sense characteristic of cancer, from a histological standpoint. And even this is not as much so as could be wished. We have already noticed its resemblance to adenoma. Wagner says, "The alveolar structure of cancer was long regarded as especially characteristic. This, however is not the case. Adenoma also, and many sarcomata and cystomata, show an alveolar structure. To draw conclusions from the alveolar texture of new formations, it is always necessary to consider the structure of the mother tissue."* And, in summing up, he concludes as follows: "From these characters it follows that at the present time there are no strict histological peculiarities. At the present time the notion connected with cancer is especially clinical not anatomical."†

In now closing our anatomical description of Sarcoma and Cancer with a short notice of the course and relation of the blood vessels and lymphatics, we are led to remark a very interesting anatomical difference between the two growths; and one having an important bearing in Pathology. In the Sarcoma the vessels are not supported by a stroma, as is the case in Cancer, but ramify amongst the cells of the growth, hence the facility with which these tumors become generally disseminated. On the other hand according to Cornil and Ranvier, the lymphatics communicate directly with the alveoli of Cancer.‡ This explains the tendency of cancer to infect lymphatic glands.

We now come to the subject proper, viz. malignancy. Its definition has already been given:—a tendency to spread rapidly and to recur after removal. The questions now are upon what does this depend, and why are certain growths more malignant than others. From what has preceded our answer may possibly have

* Wagner. Page 480.

† Wagner. Page 501.

‡ Cornil et Ranvier, *Histologie Pathologique*. Page 175.

been anticipated—that it depends upon the transmission of certain elements, probably cellular, to different parts of the body. This is possible and actually occurs in three ways.

I. Locally by simple extension of the growth.

II. By means of the Lymphatics.

III. By way of the blood-vessels.

“As a general rule the more juice, or cells a growth contains, and the richer it is in blood-vessels and lymphatics, the more quickly will it infect the lymphatic glands and internal organs,” * and conversely. In addition to this another point must receive consideration, viz., the difference in the mode of growth of tumors. The proportion of central and peripheral growth is not the same in all tumors. Cancers and Sarcomata are characterized by a predominantly peripheral growth. Other things being equal, a peripheral growing tumor is more malignant than one whose growths is central. The reason of this is obvious. A centrally growing tumor has its active proliferating cells surmounted by a zone, in many instances a capsule of inactive, if not dead material; while in the case of the peripheral growing tumor the active multiplying and infecting cells are at the periphery in immediate contact with the surrounding tissues. The absorption of the elements of the primary growth has, according to Wagner, been demonstrated. He says, “For some cases it has been demonstrated with certainty that cancer masses as a whole and cancer cells especially which are free in the blood-vessels, having been transported hence and deposited in other parts, become the cause of cancerous formations.” † He gives similar testimony as to their entrance into the lymphatics. Their mode of action after reaching the part is according to Green “by virtue of an influence on the cells of the tissue where they lodge, which may be termed a spermatie influence, and which is strictly comparable with that of the sperm cell in the ovum.” ‡ That is, it excites the cells of the part to a peculiar activity and multiplication. Of course a similar influence is supposed in the local extension of the primary growth. The comparative fre-

* Green, Page 107 and 108.

† Wagner, Page 483.

‡ Green, Page 100.

quency and extension of their infection explains the frequent heterology of malignant growths.

While all tumors are therefore probably more or less likely to recur after removal, those are especially so, which are abundant in cells; more particularly the small round cells (this because of their more ready entrance into the vessels); and are richly supplied with blood-vessels and lymphatics.

These factors we have seen to be in a great degree characteristic of Cancer and Sarcoma. The elongated cells being less fitted for absorption, we find the fibroid tumors, recurrent in a lesser degree. The same may be said of the cells of epithelioma. In this connection Wagner says, “especially do so numerous transitions seem really to exist between the so-called benign and malignant new-formations that a fixed limit is at present, and perhaps always will be impossible.”*

It will have been noticed that in giving our view upon malignancy, no allusion has been made regarding constitutional predisposition. The question of the comparative importance of local and constitutional causes in the etiology of malignant growths must still be considered open, but the belief in the greater importance of local causes is daily gaining ground, and is even at the present day accepted by the principle pathologists. The most generally accepted view at present, seems to be, that a certain constitutional predisposition probably exerts *some* influence in determining the peculiarly degenerative and destructive changes. This must, however, not be interpreted as implying any *specific* influence; but rather one, admitting of comparison with that low state of vital activity, seen in certain individuals of broken constitutions, where the tendency to a breaking down of tissues is general. In the study of malignancy we are again reminded in nature there are no sudden jumps from one extreme to another, but always a gradual transition. One kind of morbid action gradually merges into an other. In a paper read before the Erie county Medical Society, two or three years ago, I arrived at somewhat similar conclusions. After asserting the gradual transition of

* Wagner, Page 501.

hyperæmia into inflammation, and vice versa, I remarked, "In conclusion I will say, to my mind, inflammation is not alone in the fact of its gradual transition into other conditions. My conviction is settled, that, as we progress in our knowledge of the general principles of disease, the application of the 'law' of transition will be found to approach the universal." Examples or illustrations of this law are found on every side. The fact that authors speak of sarcomatous cancers and carcinomatous sarcomas shows that these growths occasionally merge into each other. Rindfleisch speaks of a mixed tumor which he says, "we must leave undecided whether it is to be reckoned with the sarcomas or carcinomas."* The gradual merging of an adenoma or glandular tumor, into carcinoma, has already been referred to. To quote Rindfleisch once more, "certain authors" he says certainly move the idea of adenoma up and down the scale mentioned, in that they now assign it more to hypertrophy, now more to carcinoma; that however a motion up and down of this kind is possible, just proves the existence of this scale."†

Wagner says, "doubtless between adenoma and glandular cell cancer there are found the most manifold transitions."‡ These he classes under the head Adenoma Carcinomatodes. One of the synonyms of cancer is 'spongoid inflammation;' and Wagner speaking of the two processes says, "Of many cases" (of cancer) "especially of the stomach and mammae, even after careful microscopical examination, it remains doubtful whether they belong here or represent chronic inflammations with strong cicatricial formation, or with simultaneous glandular hypertrophy."§

Rindfleisch considers hard glandular cancer as dependent upon an interstitial inflammation of slow growth; the cellular products of which are metamorphosed into epithelial forms instead of into pus or connective tissue; this in consequence of an epithelial infection* due to neighboring epithelial cells.

Much more might be said upon this subject of transition. And what has been said, should have received elaboration and elucidation

* Rindfleisch, Page 164.

† Rindfleisch, Page 158.

‡ Wagner, Page 493.

§ Wagner. Page 495.

tion. But a little thought upon the subject will enable any one to carry this mode of reasoning in various directions, and that to a far reaching degree.

In conclusion let me call attention to one of the practical points intimately connected with the subject.

If the views contained in this paper are correct, any expert to whom we may hereafter carry a specimen for examination, will not say "this growth is malignant or this growth is benignant and harmless." He will rather express his opinion in relative terms, as, for example, "the specimen which I have examined is more or less abundant in cells; their character, as to shape, more or less adapts them for absorption; the arrangement of its blood-vessels and lymphatics is such that they will or will not greatly facilitate absorption and infection of neighboring tissues; the extent of the degeneration and breaking down of cells, and the comparative number of multinucleated cells and the small round cells, to the exclusion of any decided tendency to elongate and develop, prove its more or less rapid growth and destructive power." The consequence will be that we shall watch all morbid growths with a view to their malignancy, being especially fearful of those possessing the above properties in a marked degree. The question will no longer be, is the growth malignant or benign; but to what degree is it malignant, that is, liable to recur, to spread and be destructive.

The main object of the paper has been, by means of an example to call attention to the fact of transition as seen in Pathology.

Many of the positions taken being contrary to the views held by the majority of medical practitioners, more particularly those who have not given the subject any special study, I have felt warranted in making numerous authoritative quotations.

In the opinion of the writer, more attention should be paid to general principles, both in Disease and Therapeutics. The result would be a diminishing amount of superstitious belief in specifics and a growing clearness of vision in matters medical.

* Rindfleisch, 167.

ART. II. — *Abstract of the Proceedings of the Buffalo Medical Association, April 2, 1879.—Post-partum Hemorrhage.* By Prof. J. P. WHITE. Reported by JOSEPH N. FOWLER, M. D., Secretary.

The President, Dr. THOMAS LOTHROP, occupied the chair. The minutes of the last meeting were read and adopted.

Prof. JAMES P. WHITE spoke upon the subject of Post-partum Hemorrhage, as follows:

Mr. President and Gentlemen:

When you were kind enough to invite me to address you on the subject of Post-Partum Hemorrhage, it was in view of its great importance, and not because I hoped to throw any new light upon the subject that I consented.

GOUCH says that before passing the threshold of the Parturient chamber the medical practitioner should be prepared to encounter uterine hemorrhage in all its forms. The danger of hemorrhage after the delivery of the child is very great, and the means of fore-knowing it absolutely *nil*. There is no time to consult books or arrange for a consultation. You perceive, therefore, how important it is that we should be prepared at all times to encounter it. A brief delay may find our patient beyond assistance. The amount of blood lost must be estimated by the impression made upon the system, rather than the quantity. The pulse is the earliest and best test of danger. If the hemorrhage be severe the pulse becomes increased in frequency and diminished in force. Dimness of vision, ringing in the ears, vomiting, coldness of the extremities, a clammy perspiration, are all valuable indications of exhaustive hemorrhage. Convulsions ordinarily supervene before syncope and death take place. The exhaustion brought on from hemorrhage differs from that due to the process of labor. The pulse not only flags, but there is always a death-like palor.

What are some of the causes of this accident? The chief and most common is uterine inertia, atony or non-contraction of the uterine muscles. Laceration of the uterine neck or vagina, or of the womb itself, are among the causes.

You are all familiar with the appearance of the uterine placenta

surface. So soon as the placenta becomes detached if the uterus remains uncontracted the valveless vessels are permitted to pour out their contents into the uterus, and a most alarming hemorrhage ensues, and it is only by the contractile power of the womb that they are closed, and ligated, as it were. And upon this alone must we depend for arrest of the flow. Diathesis has much to do as a cause. Feeble persons are more liable to hemorrhage than others. Exhausting diseases, in which the coagulability of the blood is lessened; tumors of all kinds; fibroids within the cavity of the uterus—or intra mural which increase its vascularity and prevent contraction; inversion of the uterus, whether partial or complete. The former I believe not infrequently present without our knowledge of it. Hemorrhage may occur either before or after delivery of the placenta. A protracted labor, if followed by the rapid expulsion of the child at its termination. Over distention of the uterus, which may lessen its contractility, increasing the size of the vessels as well. A hot climate predisposes to hemorrhage. English ladies who go to India are liable to this accident. The hemorrhage may be concealed, the blood accumulating in the uterine cavity, gradually dilating and increasing it.

In treating post-partum hemorrhage we know better now how to manage it successfully than formerly. It may nearly always be prevented by faithfully following prophylactic measures. Always secure contraction of the uterus as the head of the child passes out, by placing the hand over the hypogastrium and manipulating the womb. Ergot should be administered at this stage. Forceps deliveries are more apt to be followed by hemorrhage, because of the rapidity of the child's expulsion, or withdrawal at the conclusion of the second stage. Rapid completion of this stage, or sudden evacuation of the uterus are frequent causes. Under such circumstances the advancement of the child should be retarded at the vulva, that the womb may have time to regain its tonicity and contract firmly. If there be any indications of relaxation of the organ at the conclusion of the second stage the ergot should be repeated. I hardly know in what form to recommend its administration. Squibb's and Wyeth's fluid extracts are good, but I prefer that the practitioner should gather his own ergot, run it through

a coffee mill and prepare it himself at the time. After the flowing has commenced the pillows should be removed and the foot of the bed elevated so as to keep the patient's head low. Grasp the uterus with one hand and make firm pressure. Should not be in too much of a hurry to apply the bandage, it would only be in the way. Wait till the uterus has contracted under the hand and remains so for a considerable time before applying it. It should consist of some elastic material, such as flannel.

It is important to see that the bladder is evacuated. At this stage it is necessary to keep the patient quiet as well as depress her head, as there is great danger from exertion. Freely ventilate the room and maintain an equable temperature. Manipulation of the uterus is of the utmost importance. Seize it with the hand and hold it firmly. Failing in these measures apply cold to the hypo-gastrium. If it be convenient gather some snow in a napkin and apply it. Perhaps you may conclude to introduce ice into the vagina. If these measures do not succeed expose the abdomen and dash cold water on it. Avoid too protracted application of cold. A rubber blanket may be placed under the patient and cold water poured from a coffee-pot or pitcher. The object aimed at is shock. While this is going on continue manipulation and pressure. Ergot must again be resorted to. If the stomach rejects it, or you desire a more rapid effect, give a hypodermic injection of the solid extract dissolved in a little water. If you do not succeed with these agents administer opium and brandy freely. Opium does not paralyse the uterine fibre, but stimulates it to contract, and acts as a hæmostatic. If the cold douche is not followed by contraction of the womb alternate with hot water. The cold douche rarely fails. Our whole reliance is upon uterine contraction.

After the uterus has contracted and the placenta peeled off, the latter should be removed at once. The same rule holds true in concealed hæmorrhage. If the after-birth be retained pass the hand into the uterus, gently detach it, knuckle the uterine walls to excite contraction and remove it, while with the other hand external pressure should be made. If the whole of the placenta cannot be secured, remove that part which can be readily detached, but never resort to violence. One of the most powerful means of

inducing uterine contraction is the ether spray directed upon the hypogastric region. Avoid too long continued use of cold as it will depress the vital energies. These are the remedies usually resorted to.

In extraordinary conditions, where there is irregular or hour-glass contraction follow up the cord, dilate the contracted fibres, detach the placenta, and let both hand and placenta be pushed out by the uterus as it contracts. The same rule applies to the removal of coagula.

In former times, and, indeed, in my own time, the tampon was used and the mouth of the uterus plugged up. It is plainly perceived that blocking up the mouth of the uterus with a tampon would dilate that organ and enlarge the orifices of the bleeding vessels and increase the danger. I have some confidence in applying the child to the breast as a means of exciting uterine contraction. We all know the sympathy existing between the two. This can be done, but must not interfere with other measures.

Styptic injections have been recommended, such as ferri persul—of which Barnes has been a special advocate for the last ten years. My own experience is rather opposed to its use. It coagulates the blood, and in this condition may enter the blood and produce death. Waving this objection it forms an incalculated mass, as it were, objectionable in many ways.

In Havana where this accident is said to be common, tincture of iodine is used in the same manner.

Dr. MACK, of St. Catherines, throws brandy into the uterus, and believes it superior to all other known remedies.

At the last meeting of the Gynecological Society Dr. Penrose advocated the application of vinegar to the interior of the uterus with a sponge, and thinks that when properly employed no patient should be lost. I have used vinegar as a styptic for many years, and keep it conveniently at hand to stop bleeding when examining and operating, in preference to all other styptics.

Dr. PLAYFAIR, in the last *Obstetrical Journal of Great Britain*, speaks highly of hot water injected into the uterus. All of these measures act by stimulating the womb to contract. I am reluctant, under any circumstances, to allow myself to inject the uterus.

Another method of treatment consists in making pressure upon

the abdominal aorta, by pressure over the abdomen or by introducing the hand into the vaginal cul-de-sac, or uterus itself, and still more recently by passing the hand into the rectum. The last procedure I would be a little disinclined to adopt.

Galvanism may stimulate the womb to contract better than any other means, but unfortunately, a battery is rarely at hand on such occasions. The hypodermic injection of ether in dram doses when a patient is in a moribund state is a powerful stimulant.

Transfusion is useful under such circumstances.

Eschmark's elastic bandage applied to the lower extremities to diminish the amount of blood circulating in them and relieve cerebral exhaustion has also been employed.

I have spoken upon some of the most important points of a subject attended with greater danger and demanding more energetic means of relief than any other accident I ever met in my professional life. I have confined my remarks to hemorrhage after the delivery of the child, and omit any consideration of another interesting feature, the after-treatment.

Prof. J. F. MINER said he had no reply to make to so earnest and eloquent discussion of the subject involved. I have never had much fear or anxiety about hemorrhage succeeding labor. During my practice of thirty-two years, I have attended a large number of lying-in-women, and do not recollect losing a single patient from post-partum hemorrhage. The doctor impresses us with the great danger attending these cases, and I am gratified that I should have been so fortunate. I never have resorted to uterine injections, or electricity—have used cold douche, and often introduced the hand into the cavity of the womb, and if coagulum was found drawn it out. I question the possibility of grasping the dilated uterus with the hand and forcing it to contract permanently, and am not prepared to accept the position taken by authors, that external manipulation is so important. The womb is made to contract by shock, and I doubt the efficacy of any measures other than those calculated to stimulate this function of contraction.

Dr. CRONYN said he had scarcely any thing to add. The object of Dr. White's address was to point out the very great danger of post-partum hemorrhage and the measures to prevent and control

it. The Professor omitted to mention one form of hemorrhage which follows labor, notwithstanding perfect contraction of the uterus has been secured. In these cases it is evidently due to laceration of the cervix, which might be arrested by the application of vinegar and other styptics as suggested by the Doctor. It is here that the tampon, vinegar and hot water are useful. During many years' experience in practice it has been my misfortune to meet several cases of post-partum hemorrhage of a very alarming character, which caused me much anxiety. I highly value the method of grasping the uterus with the hand and holding it forcibly. I recollect one woman whom I attended in three labors, all of which were followed by alarming hemorrhage. On the last occasion her husband was able by the power of his grasp to keep the womb contracted and saved her life. It was necessary to continue this for three hours. These cases are frightful and sometimes prove fatal.

After the transaction of some miscellaneous business, and the election of the following officers:

President—LUCIEN HOWE.

Vice-President—W. W. MINER.

Secretary—JOSEPH FOWLER.

Treasurer—F. E. L. BRECHT.

Librarian—J. B. SAMO.

On motion, the Association adjourned.

—————:O:—————

ART. III.—A Renal Calculus. Service of DR. C. DIEHL. Reported by FREDERICK PETERSON, Resident Physician, Buffalo General Hospital.

Mrs. B., aet. 62, married, German, was admitted into the hospital April 14th, 1879. Patient had suffered about fourteen weeks from dysuria and unendurable smarting in the urethra. Her health during this period had gradually failed, and when she entered the hospital was unable to eat without immediate vomiting, or to sleep without pain. Renal or cystic disorder was suspected. On examination the urine was found to contain albumen in great quantity. Complained of no pain in the region of the kidneys,

but only of the urethral irritation. Was given Acid, Tannic, gr. V., Tinet. Opii. gtt. XX., three times daily with Spiritus Frumenti $\frac{3}{4}$ twice daily.

April 25. Her vomiting has ceased and she is entirely free from pain. The laudanum is discontinued. She eats but little; milk, beef tea and the stimulant being her only nourishment. Acted all day in a very eccentric manner. Not confined to bed but staggers as she walks about.

May 2. Has become insane. She broke a window, drove other patients from the ward, and finally, after further violent demonstrations, she fell exhausted against her bed. It was found necessary to put on a strait-jacket. Refused food and medicine, exclaiming that we desired to poison her.

May 3d. Still unmanageable. Keeps her jaws firmly clenched when any attempt is made to feed her. Finally resorted to elastic catheter introduced into the œsophagus through the nasal passages, and with the assistance of a Davidson syringe, a pint of milk and two gills of beef tea found entrance into the stomach.

May 4th. There is no diminution in her obstinacy in refusing nourishment and stimulants. She received her food in the same effective and unique manner as in the day before.

May 5th. Not demonstrative; struggles in her bed to the extent of destroying two strait-jackets. Towards evening she became quiet, and still later the *facies Hippocratica* made its appearance.

May 6th. Died quietly at 3.40 A. M. from exhaustion.

May 7th. A *post mortem* examination was made, several members of the hospital staff being present. The abdomen was opened. Had great difficulty in removing kidneys, from adhesions. The left kidney was so much atrophied that we experienced great trouble in finding it. It weighed two ounces, was very soft, and presented externally a circular depression one inch in diameter. On dividing it laterally, a quantity of black disintegrated pus exuded, and found entire degeneration of cortical substance, there being four or five small cavities in the organ. The right kidney was much hypertrophied, weighed twelve ounces, and an incision brought to light a condition of the gland similar to that of the opposite side, but the abscesses were larger and contained a greater

quantity of purulent matter. The most singular and interesting event of the examination was the discovery of a calculus in the pelvis of the kidney of extraordinary proportion, and perfectly filled to the infundibula and calices. The calculus, irregular and somewhat triangular in form, weighed one hundred and fifty grains. Its greatest dimension was one and three-quarters inches, its width one and five-eighths, and its thickness seven-eighths of an inch. It was composed of the phosphates. The walls of the bladder were thickened, and the sac was full of disorganized urine and pus. Her mania was probably due to the toxological effect of non-elimination of urea. A calculus resembling this is made mention of in the *Medical Record* of May 3d, 1879, but was one found in dissection, where the previous history of the subject was unknown. The writer is inclined to consider this case worthy of record.

—:o:—

Miscellaneous.

Mechanical Treatment of Chronic Inflammation of the Hip, Knee, and Ankle-Joints, by a Simple and Efficient Method. The Physiological Method—with Cases.

BY JOSEPH C. HUTCHINSON, M. D.

I design in this paper to describe a plan for the mechanical treatment of inflammation of the hip, knee, and ankle-joints by methods which seem to me to be more simple, effective, and agreeable to the patient than those heretofore employed.

It may be stated at the outset that morbid conditions of the joints are, as a rule, essentially chronic, and whether the disease originates in the synovial membrane, the cartilages, bones, or investing fibrous capsule, ultimately the morbid action involves all the tissues, so that, without the previous history as a guide, it is often impossible to determine in what tissue the inflammation began. It is to my mind merely a pathological refinement, in many cases, of joint disease, especially in childhood, to attempt to describe the symptoms indicating distinct pathological states of the individual structures composing a joint. The treatment would be essentially the same whether one or all of the articular structures are simultaneously involved.

The indications for the mechanical treatment of inflammation of the joints of the lower extremities are to secure *immobility, extension, the removal of the superincumbent weight of the body, and means of enabling the patient to take open-air exercise.* The accom-

plishment of these indications, and the use of judicious medication and proper hygienic influences, comprehend all the principles of treatment.

Immobility of an inflamed joint, absolute and complete, is a primary and essential condition of its local treatment. The more effectually this is secured, the more rapidly and perfectly the joint recovers its normal condition, and the less danger there is of its being permanently damaged. The great obstacle to recovery is friction of the inflamed surfaces. I do not mean a mere limitation of the joint—such “rest” as is obtained by placing the limb upon a soft bed or pillow—but the perfect fixation secured by a splint or other means, which admits of no motion whatever. I am aware that many excellent surgeons believe that the danger of irreparable structural change and ankylosis of the joint is very great from prolonged fixation. This I am sure is an error. There may be a temporary ankylosis, such as arises from a diminution of the elasticity of the articular cartilages, and an enfeebling of the ligaments and muscles from disease; but such changes are, or need be, only temporary, for by careful and steadily increasing use, reparation takes place in all these structures, and after a time they show no defect. I have never seen true ankylosis when the joint has been immovably fixed until the inflammation has subsided, except in cases of extensive destruction of the joint structures, in which case a cure by ankylosis is the thing to be desired. Exceptional cases no doubt occur, but the ankylosis takes place more commonly when fixation is complete, and more or less motion and friction are permitted before the inflammation has entirely subsided.

The object of extension is (1), to correct the mal-position of the limb. An inflamed joint is never straight; it involuntarily becomes flexed, nor is it possible for the patient to prevent or change this position. The flexion takes place slowly, almost imperceptibly, but surely, even when the limb has been permitted to rest quietly in bed undisturbed either by the patient or nurse; the degree of flexion depends upon the intensity or the duration of the disease. Every joint, when it becomes inflamed, assumes a characteristic position which it is important to know, not merely as a diagnostic sign, but also as a point which may be made useful in treatment. When the *hip-joint* is inflamed, the thigh is flexed on the pelvis, and, as a rule, is slightly adducted. The *knee-joint*, when inflamed, is always flexed more or less. In the case of the *ankle-joint*, the foot is flexed upon the leg, the heel is raised by the *gastrocnemii*, and the toes pointed downward. The *improper position* which the joint assumes should be corrected as soon as possible, even when the inflammation is acute; this is important in order that the different structures of the joint may not be kept in a state of undue pressure, or of inordinate tension, either of which interferes with healthy nutrition, and so conflicts with the curative process. As the joint becomes straightened under the influence of extension,

the patient experiences an almost immediate diminution of pain. (2.) By means of extension we also overcome the spasm and contraction of the muscles, which, by reflex contraction, jam together the inflamed articular surfaces, and is the chief cause of pain in joint inflammations; but I do not believe it possible, by any amount of extension that can be applied, to separate the inflamed and swollen interior surfaces of the joint so as to relieve them from pressure and the consequent pain. What we do accomplish by extension is the relief of spasm and muscular shortening; and to quiet the muscles is an imperative therapeutic axiom.

The necessity for securing the beneficial effects of out-door air by means of some portative apparatus which removes pressure from the inflamed joint is now so generally appreciated that we need not urge its importance.

The special methods of meeting the above indications will be described when we consider the treatment of the diseases of particular joints.

HIP-JOINT DISEASE.

The American Journal of the Medical Sciences for January, 1879, contains an article by the writer "On the Treatment of Morbus Coxarius by a New Method of Extension; the Physiological Method; with Cases," and I propose on this occasion to illustrate the method by exhibiting some patients who are now undergoing the treatment, and to show that the various kinds of portative apparatus now in use do not accomplish what is claimed for them. It is my purpose also to demonstrate that the "physiological method of extension" is quite as useful for the treatment of inflammation of the knee- and ankle-joints as it is for morbus coxarius.

For many years Harris, of Philadelphia, and others, treated morbus coxarius in bed by extension and fixation of the joint with the long splint formerly used for fracture of the thigh, with moderately satisfactory results; and in 1855, Dr. H. G. Davis, of New York, described a new portative apparatus designed to produce extension while allowing motion of the joint, and permitting the patient to enjoy the benefits of out-door exercise, so important in the treatment of this disease. It was claimed also by Davis and his followers that confinement to bed with the long splint applied, fixing the joint, not only impaired the general health, but increased the risk of ankylosis, which would leave the patient in a worse condition than if left to the tender care of Nature herself.

This new method of treatment awakened the interest of surgeons generally, and very soon afterward Sayre improved or modified Davis's instrument, and, with the enthusiasm of an ardent of nature, brought the new treatment prominently into notice, and by papers and lectures did more to secure its general adoption than the originator himself had done. The instruments of Taylor, Vedder, Washburn, and that devised by myself, are also modifications

of Davis's, designed to accomplish the same indications, viz.: *mobility of the joint with extension*.

Barwell, Andrews of Chicago, Bauer, now of St. Louis, and Thomas, of Liverpool, believe that the indications for the proper treatment of the disease are to secure *immobility of the joint with extension*, and they have respectively devised very ingenious instruments to accomplish this purpose; while Professor Hamilton's wire-gauze apparatus was designed merely to secure *immobility of the joint without extension*.

All these appliances are familiar to you, except that of Thomas, of Liverpool, which I will briefly describe. It consists of a flat piece of malleable iron, from three-quarters of an inch to an inch in width, by one-quarter in thickness, which extends from the lower angle of the shoulder of the affected side in a perpendicular line downward to the calf of the leg. A strap of hoop iron is riveted to the top of the upright, and nearly encircles the body a little below the axilla; another strap of iron, half the circumference of the thigh, is fastened to the upright just below the fold of the buttock; and a third, half the circumference of the calf, is riveted to the lower extremity of the upright. The instrument is carefully moulded to the inequalities of the body by means of wrenches, and is well padded and covered with leather. The apparatus having been applied, the patient is allowed to walk on crutches with a patten on the sound foot, so as to elevate the diseased limb two or three inches from the ground.

This apparatus will not allow the patient to sit down, and renders defecation very inconvenient.

We have therefore three classes of portable appliances in use for the treatment of morbus coxarius, all of which, with due respect to the ingenuity of their respective authors, I feel called upon to condemn: (1), because they do not achieve the objects for which they are designed; and (2), if they did, they are cumbersome and uncomfortable, and therefore should be abandoned, because the same indications can be accomplished by a method simpler and more comfortable to the patient.

The theory that motion and extension are obtained by the apparatus of Davis and his followers is a great deception. If you notice a patient wearing Taylor's or Sayre's long splint (modifications of Davis's), those most frequently used here, you will see that when he walks the whole pelvis swings, and there is no motion at the hip-joint.

This immobilization of the joint a kind Providence has secured, in spite of the efforts of the surgeon to prevent it. You will also observe that there is no extension made in the instrument, as the inventors claim, because the strap which is designed to produce extension, and passes from the ends of the adhesive plaster beneath the extension bar, is slackened at every step. This I have noticed lately in a number of cases in one of the hospitals of the city of New York, where there is a large orthopædic ward under the care of an

accomplished orthopædic surgeon, who uses Taylor's apparatus. The instrument merely transfers the weight of the body from the hip-joint to the perineal band, but the extension is made by the weight of the limb alone.

The apparatus of Andrews, Barwell, and Bauer are equally inefficient in securing the objects for which they were designed; viz., to render the joint immovable and to produce extension of the limb. Thomas's instrument, by its long leverage, extending from the angle of the scapula to the calf of the leg, has some control over the movements of the joint; but it is unnecessary for this purpose, and, as already indicated, is very inconvenient to the patient; while the wire-gauze apparatus of Prof. Hamilton can have but little influence in producing immobility, because it does not extend far enough above and below the joint.

Why is it, then, it may be asked, if the appliances referred to are inefficient to accomplish what is claimed for them and are deceptive, that so much improvement has been reported from them when compared with others not having their features? For my own part, I am in the habit of explaining these favorable results by the fact that the use of the instruments devised by American ingenuity has liberated patients from in-door constraint, and enabled them to live and move and exercise in the open air, instead of being treated in bed as was formerly done; and also from the fact that the principal indications, immobility and extension, are achieved in spite of the apparatus used.

We have already considered the indications for the treatment of hip-joint disease, and also for the treatment of inflammation of the knee- and ankle-joints. They are: (1), to secure immobility of the joint; (2), to make extension; (3), to take off the superincumbent weight of the body; (4), to provide means to enable the patient to take open-air exercise; and I desire to demonstrate that they can be accomplished with comfort to the patient and convenience to the surgeon by the simplest expedients.

The method of treating hip-joint disease which I commend to your attention, after having used it exclusively for the last two years, is illustrated on the little patient before you (Figs. 1 and 2). To the shoe of the sound limb a steel plate, corresponding to the sole of the shoe, is attached by upright rods two and a half or three inches in length, so as to raise the foot from the ground; it is the shoe ordinarily used for shortened leg. The elevated shoe and a pair of crutches constitute the apparatus. As the patient stands on his crutches the diseased limb is suspended. The shoe is high enough to prevent the toes of the affected side from touching the ground, and the sole should be covered with leather to avoid noise when walking.

Here are brief notes of the cases taken from the records of the Orthopædic Infirmary. The first case is that of Henry S., and the record was made by Dr. A. R. Paine.

He is five years old. and was brought to the dispensary for treatment Feb. 4, 1879. His mother states that he began to have trouble in his left hip-joint eight months previously; that he had had pain in the hip and also in the knee from that time to the present, increasing at night; and that for some time he had not been able to walk. An examination revealed the existence of well-marked morbus coxarius, as indicated by the following symptoms: considerable fulness in the gluteal region, obliteration of the gluteal fold, the thigh slightly flexed upon the body; there is apparent ankylosis at the hip-joint, the pelvis moving with the femur; the effort to move the joint produces great pain; there is also great pain on pressing the trochanter inward and when the foot is jarred. The elevated shoe and crutches were ordered for him.

He was seen a second time Feb. 21st. He used the shoe and crutches about a week. The first day he tried them he was run against and knocked down, falling of course upon the lame hip; he suffered a great deal from the injury, cried all night, and the flexion of the limb was greatly increased, but on getting upon his crutches in the morning the pain subsided and the limb gradually resumed its former position. Since that time he has had much less pain and goes about easily and comfortably. March 11th, the mother says the boy is doing "splendidly;" he has no pain day or night, and the position of the limb is good. The case is before you, and speaks for itself. There is every reason to suppose that it will progress satisfactorily.

CASE II.—Morbus coxarius (third stage) progressive improvement by the use of the elevated shoe and crutches.

This little boy, three years old, was brought to the Orthopædic Infirmary, Feb. 14th, 1879, and the record of his case was made by Dr. H. W. Rand.

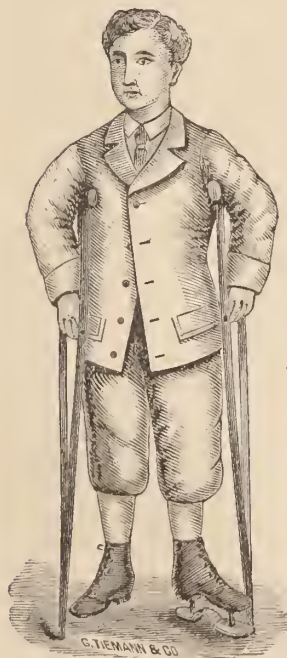


FIG. 1.



FIG. 2.—Shows the Shoe alone.

The parents think the present trouble commenced when the child was six months old. He was tolerably well nourished, and gives no history of injury. When he began to creep it was noticed that he favored the right leg. Two months later swelling appeared around

the hip-joint, most prominent in the groin, where it was opened by the family physician, discharging a thin yellowish fluid.

Since the child began to walk he has always borne the most weight on the ball of the foot, rarely allowing the heel to touch the floor, owing to flexion of the thigh on the trunk. He complained of very little pain until December of last year, since which time pain has been almost constant and referred to the hip-joint.

When presented at the infirmary, the thigh was flexed on the abdomen, foot inverted, pelvis drawn up on affected side, nates flattened, and gluten-femoral crease lowered. Movement of the thigh excited spasmodic action in all the muscles around the joint, producing apparent ankylosis of the hip-joint, the pelvis moving with the femur. Pressure of the head of the femur against the acetabulum and pressure behind the trochanter caused pain.

Ordered elevated shoe ($2\frac{1}{2}$ inches) for left foot, and crutches.

Patient returned March 4th. Has learned to walk with the crutches and has had no pain for the past week. When last seen, March 14th, he was still entirely free from pain. Movement excited less spasmodic action in the muscles around the joint, and the flexion of the thigh on the abdomen had somewhat diminished.

A point of interest in this case is the early period at which children may be taught to use the elevated shoe and crutches.

The third case I bring forward as an illustration of complete recovery from morbus coxarius (third stage), treated by the elevated shoe and crutches. This case has been fully reported in the January No., 1879, of *Hays' Journal*, from notes by Dr. Paine, and I will not repeat it here. An examination shows that the position of the limb and foot is perfectly normal; there is no shortening; the joint moves freely in all directions without pain: the most careful scrutiny reveals no evidence of disease, and he looks and feels well. He was under treatment at the infirmary for eight months, when his recovery was pronounced complete.

By the simple appliances shown upon the patients whom I have presented to you this evening we fulfil all the indications for the mechanical treatment of hip-joint disease, and I desire to emphasize the statement that whatever artificial appliances for fixation and extension may be added, they simply tend to increase the discomfort of the patient.

Immobility, which it is just as important to obtain in the treatment of inflammation of this as of other joints, is secured by reflex contraction of the peri-articular muscles, aided by intra-capsular effusion, and the voluntary effort of the patient to keep the joint at rest on account of the pain which motion produces. Fixation of the joint is one of the earliest and most characteristic conditions in morbus coxarius; and it is so marked, that when we move the limb, the pelvis moves with it; there is apparent ankylosis. This rigidity continues until nature says immobility is no longer necessary, she secures it better than we can by any artificial appliances.

In the later stages of the disease motion is desirable, and gradually, as the inflammation subsides, the muscles become relaxed, motion returns, and ankylosis is prevented, except in extensive destruction of the joint surfaces, in which case a cure by ankylosis is the thing to be desired.

Extension is made by the weight of the suspended limb, which is equal in weight to one-fifth of the whole body, is greater than the weight ordinarily employed for extension, and is quite sufficient to subdue the spasm of the muscles which crowd the head of the bone into the inflamed acetabulum and is the chief cause of the pain which the patient experiences. We all know how promptly contraction of the muscles of the extremities, in cases of cholera or from other causes, is overcome by forcible extension. The pain in the part is relieved not by separating the inflamed articular surfaces as has been claimed, for we cannot separate them to an appreciable extent by any amount of extension that can be applied. The extension not only relieves pain, but it corrects the *malposition* of the limb, whatever it may be, and prevents the deformity which would otherwise occur from contraction of the muscles or partial dislocation of the head of the bone. By means of the elevated shoe and crutches *the weight of the body is removed from the diseased joint and the patient can enjoy all the benefits of open-air exercise*, conditions so evidently necessary as to require no special consideration.

It seems to me probable that the method of extension here described is both more efficient and more agreeable to the parts concerned, by reason of being more gradual, equable, less arbitrary and constraining, and, therefore, exciting a less degree of reflex resistance than most other methods. There is a certain degree of instinctive, unconscious recoil in the mind of every patient, young or old, against all the various devices of constraint or imprisonment which a splint or apparatus implies.

This plan of treatment should be adopted at once, whatever the stage of the disease, and continued until the cure is completed, except in the comparatively rare form of arthritic coxalgia, where acute inflammation of the synovial membrane and other soft structures of the joint is suddenly developed, attended with great constitutional disturbance and excruciating pain, increased by the slightest movement of the limb or the shaking of the bed. In such cases it would be inappropriate at first. Until after the acute symptoms have subsided they should be treated in bed with the long spint and the weight and pulley, together with other appropriate remedies.

There may be cases in which it will be necessary to make extension at night, by the weight and pulley, to relieve the usual nocturnal pain, while the elevated shoe and crutches are used during the day, but I have not thus far met with any, even among those who had used the night extension, with some portable apparatus during the day, up to the time they came under my treatment.

The patient soon learns that relief from pain is obtained by sus-

pending the diseased limb, and then he is glad to walk or stand on the crutches three or four hours daily. This appears to be sufficient to relax the muscles to such a degree that spasmodic contraction, with the accompanying pain, does not take place at night.

For children who are too young, and older persons who are too feeble to use common crutches, Darrach's wheeled crutch, or the ordinary go-cart, are admirable aids to locomotion. Darrach's crutch is the best, as it is so constructed that the patient may be partially suspended in the crutch, if necessary, by a perineal band, which prevents fatigue, and it is also lighter and more elegant in construction. The elevated shoe should be used with either instrument. If a case comes under treatment at so advanced a stage that resection is necessary, the elevated shoe and crutches should be used after the active symptoms following the operation have subsided, instead of adopting the usual practice of confining the patient to bed and using the weight and pulley.

THE KNEE-JOINT.

From the diseases of the hip-joint we will descend to those of the knee; but we must take the metaphor in an anatomical, not a surgical sense; for the frequency with which inflammation occurs in the knee-joint, owing to its complicated mechanical machinery and its exposed position both in relation to atmospheric changes and liability to injury from violence, invests the subject with an interest to the surgeon quite as great, if not greater, than that which pertains to the hip-joint.

For the morbid conditions of the knee-joint the indications for treatment are in all respects the same as for inflammation of the hip-joint, with the addition of *compression* over the joint.

The knee is not, like the hip, surrounded by powerful muscles, which by their rigidity immobilize the diseased hip-joint. It is necessary, therefore, in the case of the knee, to bring to our aid some mechanical restraint in order to effect complete rest. To secure *fixation* of the knee-joint, I use splints made of hatter's felt, such as you see on the patient before you (Fig. 3). It consists of seven layers of cotton-cloth saturated with shellac, and well rolled together while hot. It is manufactured of this thickness specially for me, by Mr. Holley, of South Fifth Avenue, New York, and may be obtained from Tiemann, and I suppose other surgical-instrument makers. That ordinarily sold consists of but five layers of cloth, which for most cases is not firm enough. To give efficient rest to the joint, the splint should be of sufficient length, and wide enough to nearly sur-



FIG. 3.

round the limb; it should extend half way up the thigh, and to a corresponding point below the knee. A shorter splint, merely wide enough to cover the posterior part of the limb, does not secure the complete immobility which I have insisted upon in the treatment of diseases of the joints, where absolute rest is demanded. The splint having been cut of the proper length and width (the material is easily cut with a sharp knife), and the limb covered with a stocking, the felt made pliable, preferably by dry heat in an oven or before an open fire, or by immersion in very hot water, is applied to the limb and covered quickly, and firmly with a bandage from below upwards, so as to mould it to all the inequalities of the surface. While the splint is being applied an assistant should make extension from the foot, so as to straighten the limb as much as possible in cases where the joint is flexed; but no violent effort should be made to reduce the malposition; this can usually be accomplished by the gradual, painless (physiological) extension made by the weight of the limb, to which we shall presently refer. The joint surfaces are morbidly sensitive to pain, which would be greatly increased if they were suddenly and forcibly pressed together in the effort to reduce the deformity at once. If the surgeons's hands are very sensitive to heat, he may handle the splint better by wearing a pair of cotton gloves wet in tepid or moderately cold water. So soon as the splint regains its inflexibility, and this it does very quickly, it may be removed, trimmed up, and holes punched an inch or an inch and a half from the front edges for lacings. The object in punching the holes a little way back from the edges is to permit the splint to be made smaller by cutting off the edges, so that pressure may be kept up as the knee diminishes in size. The splint should nearly meet in front, and be laced tightly as the patient can bear with comfort; all the benefits of elastic pressure may be secured by surrounding the knee with a layer of wool-wadding, which never becomes matted, never loses its elasticity, and is an extremely comfortable method of making pressure, if the patient should complain of discomfort from the splint. If in any case it is considered desirable to leave the top of the knee uncovered, a semi-circular piece may be removed from either side of the splint, windows may be cut at any point where there are fistulous openings which require dressing. The splint may be made more comfortable in warm weather by perforating it here and there with a punch. If the leg is rotated on its longitudinal axis with a tendency to inversion or eversion of the foot, this should be prevented by extending the splint down to the foot.

If the leg is flexed when the splint is first applied, and cannot easily be forced into a straight position, the angle of the splint should be changed from time to time, as the leg becomes straighter under the influence of extension by its own weight. This may be done by softening the posterior part of the splint by the application of a sponge dipped in hot water; a bandage should then be firmly

applied, while extension is made upon the leg by the hands of an assistant. So soon as the splint hardens, the bandage is removed and the lacings tightened. The splint, although firmly applied, does not interfere with the straightening of the joint by the extension made by the weight of the leg.

I prefer the felt splint to one made of plaster-of-Paris, leather, or liquid glass, because, while it is equally firm, it is also lighter, adapts itself just as well to the inequalities of surface about the knee, is more easily applied, its angle may be changed without removing it from the knee, and it may be unlaced and opened to examine the parts, or even removed, without disturbing the joint.

By means of the knee-splint we not only fix the joint and contribute to correct its malposition, but we also make *compression* upon the part, which is a valuable therapeutic auxiliary in the management of these cases, and its importance must not be overlooked. Compression causes absorption of non-purulent effusions into the joint, removes the boggy, infiltrated condition of the connective tissue which surrounds it, protects the part and gives support to the relaxed ligaments and synovial membrane.

Extension is best accomplished by the use of the elevated shoe and crutches which have already been described in considering the treatment of hip-joint disease. (Fig. 1.) The weight of the suspended leg, which may be estimated as one-twelfth to one-tenth of the weight of the body (eight to ten pounds in a body weighing one hundred pounds), is quite sufficient to tire out the muscles, which by reflex contraction compress the already suffering tissues within the joint, increasing the pain and leading to interstitial absorption—in short, the muscles are restored to their length. By means of extension we also correct the malposition of the limb, which is usually contracted to an angle of 120° ; but extension has not the slightest influence in separating the diseased articular surfaces, nor do I consider this necessary. This method of extension is so gradual and equable, and therefore so agreeable to the parts concerned that the muscles are persuaded to relax, if such an expression is permissible in this connection, instead of being irritated and stimulated to contraction.

The apparatus of Prof. Sayre for producing extension of the diseased knee-joint, as well as the appliances of H. G. Davis and Sherman, of Chicago, for the same purpose, are creditable to the inventive genius of their respective authors; but those of you who have used either of them must be aware of the skill and experience necessary to apply them properly, the constant attention they require to keep them suitably adjusted, and the discomfort to the patient produced by the irritating effects of the adhesive plaster by which they are attached to the limb. Moreover, the effects to produce forcible extension by these various devices excites resistance, and the patient, young or old, instinctively recoils from the attempt

to overcome muscular contraction by an exertion of strength applied by means of an apparatus.

The weight of the body being removed from the diseased joint by the use of the elevated shoe and crutches, the patient should be kept out of doors as much as practicable, and if old enough to understand the rationale of the treatment, the importance of using the crutches three or four hours daily should be explained to him, and, if necessary, their employment enforced. Patients should also understand the importance of keeping the joint at rest. They not infrequently complain of the restraint of the splint, and secretly remove it themselves (I speak especially of dispensary patients), not because they really suffer pain from the position or confinement of the limb, but because they are afraid of losing the use of the joint. I mention this, not to induce you to shut your ears or disregard the complaints of patients—on the contrary, I think they always deserve attention—but to warn you against deceit from this cause.

There are many mild cases of chronic inflammation of the knee-joint characterized by slight effusion into the joint and tenderness on pressure over the lower part of the inner condyle of the femur, or at the inside of the head of the tibia, in which there is no pain on pressing the articular surfaces together. In such cases the application of the knee splint is sufficient to effect a cure without the use of the elevated shoe and crutches.

When the disease has resulted in destruction of the joint and caries, either from the violence of the attack or the advanced stage of the disease when it came under observation, we may still hope to save the limb and secure a cure by ankylosis. In fact, by rightly carrying out the indications above referred to, of which the first in importance in all joint inflammations is perfect immobility of the part, the most unpromising cases not infrequently recover; but if the patient is becoming exhausted by suppuration and there is not sufficient reparative power left to throw off the disease, resection or amputation may become necessary.

THE ANKLE-JOINT.

In the treatment of inflammation of the ankle-joint and its consequences, *perfect rest* of the parts (mechanical immobilization), and the *removal of pressure* from the diseased articular surfaces, is quite as important, and I may add quite as satisfactory as in the diseases of the hip and knee, and the indications may be met in the same way. Instead of the felt, I prefer to use for fixing the ankle, two splints made of plaster-of-Paris, because they adapt themselves better to the inequalities of the surface about this joint, one to be applied in front and the other behind, extending from the middle of the leg to the ends of the metatarsal bones, and wide enough to leave an interval of half an inch between the edges on the inner and outer side. The splint should be made of two thick-

nesses of Canton flannel with coarse meshes, or three thicknesses of coarse towelling cut of the proper length and width. One layer of cloth is laid upon a table and covered with liquid plaster of the consistence of cream, and spread smoothly with a table-knife. The other layers are then immersed in the plaster and applied evenly and smoothly over the first; and when both splints have been prepared, one is applied in front and the other behind, with the under surface of the first layer, which is not covered with plaster, next to the skin, and covered with a roller bandage firmly applied from below upward. The surgeon should now grasp the foot, and holding it at a right angle to the leg, make extension until the plaster hardens, which requires about five minutes. The bandage should then be removed and the splints surrounded by three or four strips of adhesive plaster, and the bandage reapplied more loosely. Windows may be cut in the plaster so as to allow any openings that may exist in the parts to be uncovered. (Fig. 4.)



FIG. 4.

In all cases of diseased ankle-joint, the heel is raised more or less by the contraction of the gastrocnemii, and the toes pointed downward, if it is permitted to pursue its own course, and it is important to overcome the contraction of the muscles and place the joint at rest with the foot in its normal relation to the leg, (1) to secure its proper position, should ankylosis takes place; and (2) to relieve the pain produced by the unremitting muscular contraction day and night.

To remove pressure from an inflamed ankle-joint, and to provide means for letting the patient get the benefits of the open air, is not less important than in the case of a diseased hip or knee-joint. To accomplish these essential indications, a variety of instruments have been devised; but they are liable to the same objections which have been found to the appliances used for producing extension

of the knee joint. After an experience somewhat extended in the treatment of these affections, I have no hesitation in recommending the elevated shoe and crutches as the best and simplest method of making extension and removing pressure; it is just as effectual for the ankle as for the knee and hip-joints. The weight required is not great, and the weight of the foot is sufficient to overcome the muscular contraction.

If the foot, from long neglect, cannot at once be brought to a right angle with the leg, the splints should be renewed every five

or six day, increasing the extension a little at each application, until the foot is brought into proper relations with the leg.

The advantages which the mechanical treatment here described possesses over that commonly employed in the management of the diseases of the lower extremities are:

1. It saves the surgeon the trouble and annoyance of applying and carefully watching the instruments in ordinary use, to see that proper extension is kept up and undue pressure prevented; while the patient's comfort is greatly promoted by dispensing with adhesive plasters, which irritate the skin and require removal from time to time, and also with the perineal band in the hip disease, which is a constant source of discomfort.

2. The spasmodic contraction of the peri-articular muscles is overcome by the gentle, persuasive, and painless (physiological) extension made by the weight of the limb for several days; whilst forcible extension, either by the ordinary portative instruments, or by the weight and pulley, irritates the muscles and stimulates them to resistance and contraction, which must be overcome by main force.

3. I am quite confident, judging from the experience thus far obtained, that the plan of managing diseases of the joints herein described will shorten their duration more decidedly than can be done by the older methods of treatment.

4. The apparatus (if so simple a thing deserves the name of apparatus), is inexpressive, and can be made by any ordinary mechanic.

In conclusion, allow me to say that it was with a good deal of reluctance that I ventured to condemn as useless or hurtful the appliances hitherto in use in the treatment of diseases of the hip, knee and ankle-joints, and to commend to professional notice new and simpler methods. I should not have had the audacity to do so, had not my convictions, based upon practical experience, have seemed so plainly to warrant the positions I have endeavored herein to maintain. These convictions have been strengthened also by the favorable opinions expressed of the treatment of hip-joint disease, since the publication of my paper upon the subject, by surgeons in different parts of the country, for whose judgment I have long been accustomed to entertain the highest respect.—*Medical Record.*

—:o:—

• Philadelphia County Medical Society.

At the meeting of February 12th, Dr. Benjamin Lee read an article on an adaptable porous jacket employed in cases of Pott's disease and spinal lateral curvature. This jacket is made of porous felt, and its design is the same as that of Dr. L. A. Sayre's plaster-of-Paris jacket, except that the latter is immovable, while Dr. Lee's

is adaptable. The latter peculiarity gives it various advantages, in the opinion of the lecturer.

In the discussion which followed, Dr. H. H. Smith expressed his opinion that those who wrote most on the subject ignored greatly the anatomical relations of the spinal column, and were too purely mechanical in their ideas. He feared that there was such a thing as living too long, when he noticed that plans of treatment formerly well known have been lost sight of, and others renamed as novelties. Fifty years ago, in the practice of Dr. J. K. Mitchell, of Philadelphia, the speaker had seen almost the same apparatus for suspension by the head and shoulders as had been exhibited this evening. This plan was then used by Dr. Mitchell, with the promise of very excellent results, but in several instances in which it had been tried, under the speaker's observation, the result was not what had been anticipated by either the surgeon or the patient. Indeed, very little had been gained by suspension that was not also derived from the old treatment of confining the patient to bed.

Independently of the fact that treatment by extension is not new, and independently of its former results, the speaker would inquire of the lecturer how suspension by the armpits can stretch the spinal column. You may push the scapulæ as far up as the ears, and yet not stretch the spine. The axillary horns of the crutch-like splint devised by Pott were not intended to extend the spinal column, except by the instrument makers; but the axillary or crutch-head processes kept the spine from bending forward, and thus straightened it, while apparently increasing in length. Dr. Smith would also extend this objection to the practice of self-suspension, which, though it might stretch the pectoral and scapular muscles, could not possibly extend the vertebral column. The difference in height shown after suspension by the head is in some cases but slight, or may be an error in the measurement, but in other cases it is due to throwing the shoulders backward and partially unbending the low formed in the spinal curvature.

Dr. Lee replied at some length to the observations of Dr. Smith, stating that in the suspensory apparatus the shoulder straps are not intended to extend the spine, but merely to relieve the patient occasionally, by taking part of the weight from the neck in applying the jacket. When using self-suspension as an exercise, the axillary bands are never used.

Dr. M. O'Hara reported the case of a child, sixteen months old, who had for two days presented the following symptoms: intense pain, as if from violent colic; threatening convulsions and sleepiness. The bowels and bladder were thoroughly evacuated without effect. Relief was obtained only after narcotism by potassium bromide and opium. By accident the mother perceived a foreign body protruding from the anus, and by traction withdrew about eight inches of common grocery twine, which at once afforded complete relief.—*Medical and Surgical Reporter.*

Editorial.

The Convention of American Medical Colleges.

In compliance with a series of resolutions offered by Professor Gross at the last meeting of the American Medical College Association, held at Buffalo in June, 1878, a call was issued by this Association for a convention of delegates from all duly accredited medical colleges in the United States to meet at Atlanta, Georgia, May 2, 1879. Each medical school was requested to send two delegates, one from its board of trustees, the other from its faculty, and to instruct these representatives so as to authorize their action in behalf of some uniform system of medical teaching more in accordance with the spirit of the age and the standard of education in Europe. When the convention assembled, Prof. S. D. Gross, of the Jefferson Medical College, was called to the chair, and Prof. Starling Loveing, of the Starling Medical College, of Columbus, Ohio, was appointed secretary.

The meeting being organized, Prof. N. S. Davis read the preambles and resolutions adopted at the last meeting of the American Medical College Association, and stated that the object of the convention was to have some authoritative expression of opinion from the colleges in regard to uniformity in medical teaching, and to see if the colleges of this country could not be induced to take a step forward. The students should furnish evidence that they have mastered the ordinary English branches, and should be required to attend three annual courses of medical instruction prior to graduation. The sentiment of the meeting was expressed in the following propositions, the first of which passed after discussion; the second passed unanimously.

First, all medical colleges should require attendance upon three regular courses of lectures during three separate years before admitting students to become candidates for the degree of M. D. Second, the medical colleges should require, before admitting to matriculation, a preliminary examination, such examination to embrace at least the elements of the physical sciences in addition to a fair English education.

On motion these propositions were directed to be transferred to the American Medical College Association, and that body was apprised of the action of this convention, which adjourned *sine die*.

—:O:—

The Association of American Medical Editors.

In the Senate Chamber of the Capitol at Augusta, Georgia, May 5, 1879, the Association of American Medical Editors held its eleventh annual meeting on the evening before the session of the American Medical Association, fifteen journals being represented.

The retiring president, Dr. Wm. Brodie, delivered an address on Medical Journalism, in which he strongly condemned the practice of allowing patent medicine to be advertised in reputable medical journals, and denounced it as contrary to the spirit of the Code of Ethics. He concluded by offering a series of resolutions expressing this sentiment. On motion of Dr. Dunster, the resolutions were adopted, and ordered to be presented to the American Medical Association. Dr Parvin urged the publication of details of cases by country physicians, as a means of increasing our knowledge of clinical medicine. He announced the death of two medical editors, Dr. Isaac Hayes and Dr. Waddell, and, upon his motion, a committee was appointed to present a proper memorial upon this subject. The Committee on Nominations reported the following ticket for officers, which was unanimously elected, the secretary casting the ballot for the Association:

President, Dr. Thomas S. Powell, *Southern Medical Record*, Atlanta, Ga.

Vice-Presidents, Dr. Frank Woodbury (*Philadelphia*), *Boston Medical and Surgical Journal*.

Secretary, Dr. Frank Davis, *Chicago Medical Journal*.

Place of meeting in 1880, New York city. The editors of the *Southern Medical Record* gave a dinner to the Association on the 7th of May, at the residence of Dr. Powell, which greatly enhanced the pleasure of the meeting, and extended the opportunities for acquaintance and social intercourse, the visitors carrying away with them a warm appreciation of Georgia hospitality.

—:O:—

The American Medical Association.

In the city of Atlanta, Georgia, the thirtieth annual meeting of the American Medical Association was convened on the 6th of May, 1879, and, as usual, remained in session four days. On account of the distance from the homes of most of its members, it was scarcely expected that any considerable numbers would be present, but it was found that about three hundred and fifty delegates were in attendance from all parts of the country, the Southern States more particularly.

The *Boston Medical and Surgical Journal* describes the meeting in this wise:

“While the work in the sections, with but few exceptions, was less valuable than usual, and much time was wasted by reading papers unduly long and on unimportant subjects, the reports on the progress of the several departments of medical science, presented in general session by the chairman of the sections, were of more than usual interest and value, and were listened to with marked attention. The weather was extremely favorable for the Association, and indeed was almost too fair, as it had a tendency to lead the members to desert their work in the sections in the afternoon, in order to accept the hospitalities of private citizens, and to enjoy driving through the streets of

this capital city, which has been termed the Chicago of the South, and which, in the combined advantages of beauty of location, healthfulness of climate, and cordiality of its citizens, is probably unexcelled by any city of its size in America.

The private entertainments were magnificent in their hospitality, and were characterized by such unmistakable appreciation and kindness as to be highly complimentary to the Association; they reflected the greatest credit upon the committee of arrangements and the profession and the citizens of Atlanta."

—:O:—

Transactions of Gynecological Society, 1878.

NOTICE.—With Volume III. of Gynecological Transactions, a new style of binding has been adopted, since that which was used on the preceding volumes proved to lack durability so as to be wholly unsuitable for a permanent binding.

Fellows and Subscribers who wish to have Vols. I. and II., uniform with Vol. III., can procure covers for those volumes by remitting 50 cents for each to the publishers, HOUGHTON, OSGOOD & Co.

This new binding is ornamental, and no doubt very durable.

—:O:—

State Association of Druggists.

The Druggists of the State, to the number of about ———, met in Utica, May 21st, to form a State Association.

Prof. BEDFORD said: In calling this meeting to order, the idea of an Association of Druggists of the State is not a new one. Such Associations exist in seven of the States, and in each have elevated the status of Pharmacists. Their organization dates back twenty-seven years when the American Pharmaceutical Association was formed in New York. This stands in the same relation to Druggists as the American Medical Association does to Physicians.

After the adoption of a Constitution and By-Laws, the following officers were chosen for the ensuing year.

President—Prof. P. W. Bedford, New York; *First Vice-President*—C. M. Lyman, Buffalo; *Second Vice President*—Benjamin F. Ray, Utica; *Third Vice-President*—A. J. Inloes, Binghamton; *Secretary*—Charles H. Gaus, Albany; *Assistant Secretary*—Clay W. Holmes, Elmira; *Treasurer*—William Blaikie, Utica.

Executive Committee.—Louis E. Nicol; Brooklyn; A. B. Husted, Albany; E. H. Davis, Rochester.

Delegates to American Pharmaceutical Association—F. F. Knapp, New York, W. H. Rogers, Middletown; C. M. Lyman, Buffalo; William Blaikie, Utica; H. P. Napier, Owego.

The next meeting will be held at Syracuse, the 3d Wednesday in May, 1880.

FOURTH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF ARKANSAS, was held at Little Rock, May 22d, 1879, and was largely attended. Addresses of welcome was given by GEORGE C. HART, M. D., and was responded to by Dr. DALE, after which came the Annual Address of the President, Dr. A. A. HOMER, of Helena.

From report in the Arkansas *Democrat* of Little Rock, we infer that the Profession in Arkansas are now in prosperous condition, showing great activity and strength.

"In the matter of the appointment of a committee by the Society to act in the capacity of a State Board of Health, and to co-operate with the Mississippi Valley Inter State Sanitary Commission, your committee is of the opinion that the recommendation is a good one, and would offer, in furtherance of this idea, the following:

Resolved, That the President of the Society appoint nine members of the same, who shall act in the capacity of a State Board of Health as far as practicable, and under the sanction and co-operation of the State government.

That said committee or State Board of Health shall organize by the election of a President and Secretary, and shall endeavor to secure membership in the Mississippi Valley Inter-State Sanitary Commission on the same footing as the State Boards of Health."

—:o:—

Lactopeptine.

Lactopeptine, a combination of Pepsin, Sugar of Milk, Pancreatine, Ptyaline and Lactic and Hydrochloric Acids is now offered to the profession, and is highly recommended in the impaired digestion of old people, and in obstinate cases of diarrhoea of young children.

—:o:—

Books Reviewed.

A Practical Treatise on the Diseases of the Testis and of the Spermatic Cord and Scrotum. By T. B. CURLING, F. R. S., Consulting Surgeon to the London Hospital. Fourth Edition, Revised and enlarged. Philadelphia: Lindsay & Blakiston. T. H. Butler, Buffalo.

This book opens up to us a field for a new specialty not yet advertised by the regular profession, viz: *Diseases of Males*. This will yet offset the gynecological section of special workers in the Diseases of Females. After reading this work, we are strongly impressed with the idea that here is now open a most promising field for special workers, though most of the topics have heretofore been included in comprehensive works upon general surgery. Our author sustains his positions by most painstaking reports of illustrative cases, and his views are unmistakably orthodox upon the various subjects which he

discusses. Diseases of the testis are treated with a completeness which leaves nothing to be added; this will be appreciated when we say that this comprises 519 pages of the work, while the remainder of the book is devoted to diseases of the spermatic cord and to diseases of the scrotum.

An Introduction to Pathology and Morbid Anatomy. By T. HENRY GREEN, M. D., London, Fellow of the Royal College of Physicians, London; Physician to Charing Cross Hospital, and Lecturer on Pathology and Morbid Anatomy at Charing Cross Hospital Medical School; Assistant Physician to the Hospital for Consumption and diseases of the Chest. Brompton, Third American from the fourth revised and enlarged English edition, with one hundred and thirty-two illustrations. Philadelphia: Henry C. Lea, 1878. T. H. Butler, Buffalo.

Our author gives us concise, complete, and beautifully illustrated chapters upon the most interesting of all subjects connected with the science of medicine. The real student of health and disease, will find the foundation of knowledge in disease embodied in the pages of this volume. The first chapter upon the Cell as seat of Nutrition and Function, Constitution of Cells, Protoplasm, Nucleus, Cell-Wall, Physiology of Cells, Genesis of Cells, Vacuolation &c., &c., attracts our attention as worthy of special mention, its illustrative cuts so simplifying its teaching as to be understood by early students in pathology, and at once lending attraction to an otherwise somewhat intricate study.

Conspectus of Organic Materia Medica and Pharmacal Botany, Comprising the Vegetable and Animal Drugs; their physical character, geographical origin, classification, constituents, doses, adulterations &c., table of the tests and solubilities of the alkaloids appended. By L. E. SAYRE, P. H. G. Philadelphia: D. G. Brinton, 115 South Seventh street, 1879.

A chart begins the book which gives the medicinal properties, doses &c., so arranged that it can be readily referred to and studied.

The subjects of Medical Botany and Materia Medica are divided in systematic manner, and illustrated so as to make them attractive and instructive to every attentive student of materia medica.

A complete table of the Alkaloids is presented, giving their tests and solubilities &c., also a table of antidotes and incompatibles. As a whole it may be called a valuable book of ready reference.

A Manual of the Diseases of Children, with a Formulary. By EDWARD ELLIS, M. D., late Senior Physician to the Victoria Hospital for sick children. Woods Library of Standard Medical Authors.

The definite, plain and practical teaching of the author is every where apparent, making it an infallible guide in the treatment of diseases of children. The author speaks from personal, independent knowledge, as one having authority.

One remarkable feature of the book is, that so complete and comprehensive a work can be furnished by Wm. Wood & Co., at so small a price; a whole Library of Practical Medicine for twelve dollars.

Differential Diagnosis. A manual of the comparative Gemeiology of the more important Diseases. By F. DE HAVILLAND, M. D., Assistant Physician to the Westminster Hospital, London. Philadelphia: D. G. Brinton, 115 South Seventh street.

This book presents in tabular form the comparative points of diagnosis in many important diseases, and to the young practitioner and student is a ready helper in diagnosis. It presents in a comprehensive and clear manner the chief distinctions which are to be observed in diseases which resemble, or are liable to be mistaken for each other, and to the young or inexperienced must be regarded as a valuable guide.

Modern Medical Therapeutics; A compendium of recent Formulæ and specific Therapeutical Directions, from the practice of eminent contemporary physicians, American and Foreign. By GEORGE H. NAPHEYS, A. M., M. D., etc. Sixth edition enlarged and revised. Philadelphia: D. G. Brinton, 115 South Seventh street, 1879.

The early appearance of this Sixth Edition of Naphey's Medical Therapeutics was to be expected, and shows with what universal favor and approval the work has been received by the Profession. We have little to add to our review of recent date, other than to say, that it has been carefully revised, and important recent therapeutic knowledge added to the work. It is of universally acknowledged value and too much cannot be said in its favor; space only prevents our pointing out again its points of chief value. Naphey's Medical Therapeutics when joined with a work by the same author upon Surgical Therapeutics, constitute an almost complete Library of practical Medicine, and should be in the hands of every ambitious progressive physician.

Books Received.

Hearing and How to Keep It. By Charles H. Bennett, M. D. Philadelphia: Lindsay & Blakiston.

First of a series of small volumes on subjects pertaining to sanitary and the preservation of health, by American Authors.

Cyclopædia of the Practice of Medicine. Edited by H. Von Ziemssen, Vol. VIII. Diseases of the Chylopoetic System, with chapters relating to diseases of the Bladder and Urethra and functional affections of the male genital organs. New York: William Wood & Company, 27 Great Jones St. Buffalo: J. H. Mattison.

Demonstrations of Anatomy, being a guide to the knowledge of the human body by dissection. By George Viner Ellis, Prof. of Anatomy in University College, London. Illustrated by two hundred and forty-nine engravings on Wood. Philadelphia: Henry C. Lea, 1879.

A Guide to Therapeutics and Materia Medica. By Robert Farquharson, M. D., Edin., F. R. C. T. London. Enlarged and adapted to the U. S. Pharmacopœia, by Frank Woodbury, M. D. Philadelphia: Henry C. Lea, 1879. Buffalo: T. H. Butler.

Spermatorrhœa. Its causes, symptoms, results and treatment. By Robert Bartholow, A. M. M. D. Fourth edition revised. New York: William Wood & Co., Great Jones St., 1879. Buffalo: Peter Paul & Bro.

Hints in the Obstetric Procedure. By Wm. B. Atkinson, M. D., Physician to the department of Obstetrics and diseases of women, Howard Hospital, Philadelphia. Philadelphia: D. G. Brinton.

A Clinical treatise on diseases of the Liver. By Dr. Fried. Theod. Frerichs, Prof. of Clinical Medicine in the University of Berlin, etc., in three volumes. Vol. III translated by Charles Murchison M. D., F. R. C. P. New York: Wm. Wood & Co.

Lectures on Electricity in its relations to Medicine and Surgery. By A. D. Rockwell, A. M., M. D., Electro-Therapeutist to the N. Y. State Woman's Hospital. New York: Wm. Wood & Co.

Diphtheria, its nature and Treatment, varieties and local expressions. By Morrell Mackenzic, M. D., London. Philadelphia: Lindsay & Blakiston.

Essentials of Chemistry, organic and inorganic, for the use of Students in need. By R. A. Withhaus, A. M., M. D. New York: Wm. Wood & Co. Buffalo: J. H. Matteson.

The Laws of Therapeutics, or the Science and Art of Medicine. By Joseph Kidd, M. D. Philadelphia: Lindsay & Blakiston, 1879. Buffalo: Theo. H. Butler.

Ophthalmic out-Patient Practice. By Charles Higgins, F. R. C. S. Second edition. Philadelphia: Lindsay & Blakiston. Buffalo: Theo. H. Butler.

Transactions of the American Gynecological Society; Vol. III for the year 1878. Boston: Houghton, Osgood & Company, 1879.

—:O:—

Pamphlets Received.

Ninth Annual Report of the New York Ophthalmic and Aural Institute.

Thirty-Third Annual Announcement of the Starling Medical College, Columbus, Ohio.

Urethrisms, or Chronic Spasmodic Stricture. By F. N. Otis, M. D.

Extracts from Twentieth Annual Report of Commissioners Lunacy of Scotland, for the year 1877, with an introduction. By H. B. Wilbur, M. D., Superintendent of N. Y. Asylum for Idiots.

Chloral Inebriety. Read before the Kings county Medical Society, April 15th, 1879. By J. B. Mattison, M. D., Brooklyn, N. Y.

College of Pharmacy of the City of New York. Prospectus Fiftieth Annual Course.

Thirtieth Annual Announcement of the Woman's Medical College of Pennsylvania. Philadelphia.

Albany Medical College, Medical Department of Union University, Annual Catalogue of 48th Session and Announcement for Session 1879-80.

Association of the Alumni of the Albany Medical College, Medical Department Union University. Proceedings of the Annual Meeting held Jan. 29th, 1879. Commencement Exercises and Dinner.

The relations of the Medical Profession to the State. Being the Anniversary Discourse delivered before the Medical Society of the State of New York. Feb. 5th, 1879. By D. B. St. John Roosa, M. D., President of the Society.

Annual Address. On the Relation of Neurasthenia to Diseases of the Womb. By William Goodell, M. D., Philadelphia, Pa.

On some points in Connection with the Treatment of Sterility. B. A. Reeves Jackson, A. M., M. D., Chicago, Ill.

On the Traumatic Origin of Subfacial, Deep-seated, or cold abscess, commonly called Constitutional or Scrofulous Abscess. By Lewis A. Sayre, M. D.

Normal position and movements of the unimpregnated Uterus. By Ely Van De Walker, M. D.

Mechanical Restraint. By A. M. Shew, M. D., Superintendent Connecticut Hospital for the Insane.

Feigned Insanity. Report of case by E. N. Brush, M. D.

Mechanical Restraint in English Asylums. By W. Lander Lindsay, M. D. F. R. S. E.

Impotency in Women. By Ely Van De Walker, M. D.

BUFFALO

Medical and Surgical Journal.

VOL. XVIII.

JULY, 1879.

NO. 12.

Original Communications.

———:O:———

ART. I.—Portions of the Address by Prof. THOMAS F. ROCHESTER, M. D., of Buffalo, Chairman of the Section on Practical Medicine, before the American Medical Association, at Atlanta, Ga., May 7th, 1879.

The limitation of epidemic pestilential disease is at all times a question of intense interest to every thoughtful sanitarian, and at no time more than at present, when the vivid remembrance of last year's fearful visitation of yellow fever is but too fresh in the minds of all.

Avoiding its usual selection of localities—the cities of the Gulf of Mexico and of the southeastern seaboard—it swept the towns on the banks of the Mississippi and its tributaries with an intensity, virulence, and fatality never exceeded in any locality; neither acclimation, or previous attack, or race affording any immunity, the generally accredited exemption of the negro not holding good.

No pen can portray the suffering, the horrors and privations experienced, although many vivid pictures were drawn of the dread reality. A field for philanthropy of the highest order was opened,

and it was exercised in a manner most creditable to the human heart. Brave men and devoted women sacrificed themselves by the thousand in extending relief to their fellows, and the clergy and the medical profession especially contributed most largely, by their labors and exposure, to the number of self-immolated victims. The heart of the whole nation was stirred: and when the smitten brother appealed for help, money poured in like water from a flowing stream. No place was too remote, too poor, or too small to proffer its aid; and, as the cry extended across the sea, succor was sent from London, Liverpool, Paris, and other European cities, including Stamboul—even the distressed Ottoman gladly parting with some portion of his scanty means for the cause of common humanity.

Of what avail was all this treasure? It buried the dead, and fed and clothed the destitute, and paid some of the necessary incidental expenses caused by the plague. It could do little else, for the disease held its dire sway, and was but slightly influenced by medication. In some localities and under some practitioners therapeutic measures apparently were of avail to a slight extent, but it is not disputed, as a rule, that the malady was uninfluenced by what we call medication. The all-important question then comes up, Is it possible to ward off the invasion of this pestilence, or to confine it within limits where it has acquired a foothold? To answer this necessitates a brief ætiological investigation. What is its precise and definite origin, like that of many, or more strictly most, disorders is unknown, but where it is born is known.

As surely as cholera is a product of the jungles of India and Burmah, as certainly is yellow-fever of West Indian origin. That it is an exotic as relates to the United States, is the opinion of the last National Commission; and that it never originates *de novo*, except in its primal birth-place, whatever elsewhere may be the excess of heat moisture, filth, and vegetable and animal decomposition, is almost demonstrated, perhaps established. As to communicability, it is certainly conveyed from individual to individual, not precisely by what we understand to be direct contagion, but through various media, especially by bed and body clothing, by articles of furniture, by apartments, cars and steam and sailing vessels, by baggage and by cargoes; and these propagators, deriving

from the sick the pestilential material (intentionally not called germ), hold it with wonderful tenacity, and convey it to mankind with intense effect. Of this property there are numberless illustrations; one is selected to establish the truth of the above assertion. In September, 1856, an infected ship from Cuba was detained at the quarantine anchorage off Staten Island, N. Y. Several passengers had died, and some were ill on board. The garments and bedding were thrown overboard. Bay-Ridge, a delightful suburban neighbor of Brooklyn, the seat of choice country residences, lies directly across the bay, distant about one mile from the anchorage mentioned. The wind and tide deposited a number of the garments that had been thrown away, on the beach which terminated the lawn of Col. Charles Prince, an old and respected resident. In taking his usual morning walk he discovered the clothing and examined it with his cane, not otherwise handling it. He had no suspicion that it came from Quarantine, and never saw it again. In four days he was taken ill, and died in a week from yellow-fever. The man who nursed him, and who had previously had yellow-fever, took away with him the suit of clothes the Colonel was wearing, contracted therefrom the disease, and died. The son and daughter—adults—the Colonel's only children, were also attacked; the son died, and this was the commencement of an epidemic which destroyed many lives in a limited area, but which was stopped by enforced isolation and by destruction of bedding and garments. The clothing which produced all this evil had been saturated with salt-water, and had been tossed by the waves for more than twenty-four hours before it made its fatal landing.

Dr. Alfred Stillé, in a recent lecture to the graduating class of the University of Pennsylvania on this topic says: "As a single illustration of the mode in which it spread, I may cite the case of Grenada, Miss., a town of 2,500 inhabitants, of whom 1,040 were attacked with the fever, and 326, or more than 30 per cent., died. The fever first broke out in a family of which the mother had been to the railroad depot to see her daughter off to a neighboring town. The train was from New Orleans, where the fever was then raging, and the mother, it is thought, occupied a seat in the railroad car alongside her daughter for about twenty minutes, while the New

Orleans passengers were taking breakfast." It is also stated that the disease has a nearly fixed ratio of progress, apart from its infectious properties; moving at the rate of about forty feet per diem wherever it may be located.

If this be true, it is an important point to be considered, in connection with the established fact that it is arrested by a freezing temperature, indeed a continuation of a less degree of cold than 32°, for in Cuba, where there is no frost, it does not prevail in the cooler season of the year. Medicine will not cure, nor will cleanliness or antiseptics prevent, the progress of this disease.

Can anything be done that the horrors of the last and of other epidemics may be escaped in future? If there is any hope of such a consummation, does it not lie in a strictly enforced quarantine? That it need not be distressingly burdensome to individuals or greatly prejudicial to commerce is abundantly shown by the fact that it has been maintained at the port of New York for the past seven years by that most intelligent and efficient health officer, Dr. S. Oakley Vanderpoel. During this period many cases of yellow-fever have been received and treated at the quarantine hospital, and ships have been held and thoroughly purified and disinfected, both as relates to vessel and cargo, and have then been discharged from custody and allowed to proceed to the populous city, even in the hottest season of the year, without a single known instance of propagation of the disease.

The very mention of the term "quarantine" raises at once a feeling almost of anger in the minds of many. It is called barbarous, ineffectual, oppressive, a relic of ignorance and superstition, and even by some zealots an opposition to the dispensations of Providence. But hue and cry are generally irrational, and until something as effectual, or more so, is suggested a deaf ear must be turned to such protestations. Cholera has been held at bay by quarantine. In 1851 it prevailed in Southern Europe and in Algeria, but not one case occurred that year in Spain by reason of vigorous quarantine. Of this the speaker is personally cognizant, having there experienced a most villainous lazaretto—villainous from its want of comforts, but effectual from its restrictions. A year or two later the embargo was less strictly maintained, and cholera ravaged the Spanish

Peninsula. Those whose professional memory extends back to 1836, and those younger who have made the history of disease a study, will recall the vague notion which prevailed as to cholera. It was a something which always travelled from east to west. Ships sailing from a healthy port encountered it in midocean, and it struck and decimated those on board. Emigrants crossing the plains, bound for the just discovered El Dorado of the West, had their caravans mysteriously invaded by the fell destroyer; but time and observation dispelled these illusions, and it was found that the disease always followed the highways and byways of travel; that it was always carried by human beings, and although sometimes long in germinating, and greatly intensified by certain local surroundings, it could always be traced to individuals coming from some point of infection. If this be true of cholera, and it can be *fenced out*, is it not doubly probable that yellow-fever, with its more tangible elements of communicability, may be equally restrained?

Few quarantine stations are such as they should be. They should be made as pleasant and hygienic as location will allow. Usually required in the summer only, the buildings should be of wood, small, isolated, and with wide verandas, with all possible provision for ventilation, drainage, and necessary shade; and for these even suitable tents could often be advantageously substituted of materials which could be destroyed and renewed at but slight expense.

Quarantine, to be effectual, must have a very wide applicability; it will not do to limit it to vessels from foreign ports. It must extend to all conveyances for the transportation of passengers and merchandise—must have relations with municipal, state and national authority. As was here said two days since by the Health Officer of the Port of New York, at the meeting of the National Health Board: "Let the federal authority direct the sanitation, and the local powers take charge of all police regulations, and there will be no disturbance or disagreement."

A National Board of Health has been appointed, and it will doubtless be of great service, but it will probably not be vested with sufficient authority; its action will be chiefly advisory. There should be a National Health Bureau, with extraordinary powers for emergencies adequate to immediate action when required. It is

at all times as necessary as any of the existing departments of State; and, if connected with the present Signal Service Bureau, as has long been the aim and desire of its chief, General and Dr. Albert J. Meyer, there is scarcely a limit to its usefulness.

If the question of expense is raised, let the answer be in the cost of the late epidemic. It has been computed that the actual money loss occasioned thereby amounted to the enormous sum of \$200,000,000. If we admit that the estimate is too large, and cut it in two, how small a proportion of this sum would suffice for all quarantine expenses, and for all contingent commercial deficits! The object of the preceding remarks must be apparent. It is to induce this body to use all its influence toward promoting the establishment of a National Health Bureau, not as an ephemeral health board to meet a sudden emergency, but as a permanent and essential part of a wise and provident government.

HOW TYPHOID FEVER IS PROPAGATED.

The communicability of typhoid fever, through water supply tainted by the alvine evacuations of those affected by the disease, is now almost universally accepted as an established fact. It is a point of much interest—not as well known as it should be—that this was first brought to light thirty-five years ago, and published in the *American Journal of Medical Science* for July, 1845, by Austin Flint, M. D., then a resident of Buffalo. But, although distinctly made evident through his researches and investigations, it does not appear that he then recognized or suspected what is now very apparent.

A stranger from Massachusetts died at the tavern in North Boston, Erie Co., N. Y. He had been before unknown in that locality. He came on the 21st of September, having been ill for several days, and was unable to continue his journey. He died on the 19th of October. Between October 19th and December twenty-eight of the forty-three persons comprising the little community at North Boston were attacked with the fever, and in ten instances the disease proved fatal. Three families only in the settlement escaped. These did not obtain their drinking water from one common source; all the others did—from a spring on the grounds of the

tavern (?). This being observed by the *people*, the belief was soon established that the fatal disease was not a fever, but that the spring had been poisoned by one of the exempt families who were at feud with the innkeeper. It was for this reason chiefly that Dr Flint was sent for and employed to examine the nature and origin of the disease. From its character, and especially from a post mortem examination, he was enabled to pronounce it typhoid fever. The water from the spring was sent to competent chemists, who found it remarkably pure, and thus the theory of poison was disposed of; and yet with the light of the present day it can scarcely be doubted that it was contaminated with that deadly sept whose effects and whose mode of propagation we recognize, but cannot otherwise detect or define.

Dr. Flint's paper is entitled "Transportation and Diffusion of Typhoid Fever." He argues very closely and ably to demonstrate the communicability. He brings out the prominent feature of the supposed poisoned spring, and of those only being taken ill who drank from it. How nearly he escaped a grand discovery! But the facts which he then brought out and recorded, as now interpreted, are clearly the very first in which there is any mention of diffusion by contaminated water supply. Within the last ten years many instances confirming this view have been cited from various quarters, and notably the celebrated English dairy case, where the milk was the vehicle of the disorder, the cows having lain upon ground manured from infected vaults; portions of the excrement undoubtedly clung to their udders, and thus became directly mingled with the milk. Other explanations have been offered, but this is presumably the simplest and the correct one.

In the *Popular Science Monthly* for February, 1879, Ely Van De Warker, M. D., of Syracuse, N. Y., under the title "Typhoid Fever Poison," reports seventeen cases of the fever in an isolated suburb of the city, in which there were but fourteen houses. The first case was imported, thence through the overflowing of the privy in which all the excrement of the patient, had been thrown. A well became contaminated, all the persons who were taken ill used this well. It was the constant or occasional source of supply of seven of the fourteen families. No cases occurred in the house-

holds who did not drink from this well. Some cases were developed in every family who drew water from it. The families who escaped were exposed to every other influence but that of this particular well; their own water supply was the same, less the privy contamination. It is not unlikely that their own wells received some of the overflow from their own vaults, but as these were free from typhoid poison, no ill results ensued.

About eight years since the speaker became satisfied that a source of typhoid fever existed which was little dreamed of, and which at first thought would seem impossible. This source, as he then enunciated it to his home medical society (and not to his knowledge having been before suggested), is found in *ice*. If this idea is thoroughly investigated, it will not appear to be very problematical. In the first place, the poison is not destroyed or impaired by freezing (some one long ago remarked that ice often masks or conceals what it does not kill). Now, whence comes our ice supply? Often from shallow reservoirs in the midst or neighborhoods of large towns purposely made to receive surface drainage from all around, under the erroneous idea that no harm will ensue, as freezing is supposed to purify and render harmless what might otherwise be objectionable. Great quantities of ice are taken from canals, from creeks, from stagnant ponds, and from streams that are either the natural or artificial recipients of surface drainage, of the outpourings of sewers, and of uncleanness from various sources. The danger from ice taken from improper places is not only from that which is drunk, but from its use in refrigerators and preservatories, where milk, butter, fruits, vegetables, and meats are subjected to its saturating influence as it vaporizes. Several instances have fallen under the speaker's observation where the disease, by the most careful investigation, could not be traced to any other source; and if we accept as a fact the statement positively made by Budd in the London *Lancet* in July, 1859, that it never originates, *de novo*, but proceeds from a special and specific poison, which is capable of diffusion to a great extent, and which preserves its noxious qualities for a long period, even if buried for many months, we cannot reject the hypothesis of ice infection; and it is hoped that it will be made the subject

of very thorough and careful investigation. A statement is made by Liebermaister that it is by no means certain that recent immediate alvine dejections are more potential or active in extending the disease than those which have been exposed for some time upon refuse heaps, or have been long deposited in privies or buried deep beneath the surface.

In England the idea of the preventability of typhoid fever is now so thoroughly established, that an innkeeper, who had a guest ill with it, was notified that he would be held criminally responsible if any other case could be traced to the one under his roof. This, of course, implied, that the evacuations should be so thoroughly disinfected or destroyed that no harm could come from them—it could mean nothing else. It is claimed that the propagating property is destroyed by the application of boiling water to all the discharges, whether in vessels or on the bed or body clothing, and also indicates that other methods of disinfection should be employed. This is easily accomplished, and if the disease be recognized early, might be sufficient. But in many instances it would not be faithfully performed, and the morbid *ejecta* would be carelessly distributed in the usual receptacles. Can these be made innoxious?

It is claimed they can be, and not only rendered harmless, but useful, by a process now in operation in England, called precipitation. The following letter on this subject explains itself:

(COPY.)

COVENTRY, February 19th, 1879.

“DEAR SIR: In reply to your communication, I beg to inform you that the River Precipitation Association have been treating our sewage for nearly two years in a satisfactory manner. The principal is one of chemical precipitation by sulphate of alumina and other chemicals, and the effluent water or sewerage is passed over about nine acres of land as a simple final process of filtration. There are several villa residences adjoining the works and upon the banks of the river into which the effluent passes, but no complaint has ever been made by the occupants of any nuisance arising from the river, although the latter is a very small one—in fact, little

more than a brook, the sewage in dry seasons being double its volume. I enclose a pamphlet," etc.

The pamphlet alluded to was read before the Congress of the Sanitary Institute of Great Britain in October, 1878, by Henry Robinson, F.R.G.S. The important portion is as follows: In the writer's experience in advising with reference to precipitation works and systems he has seen more and more clearly that sulphate of alumina, aided by milk of lime, proves the most efficient agent for purifying sewage. This he has now advanced upon, inasmuch as he has discovered that the efficiency of sulphate of alumina is greatly increased by the presence of some proto-sulphate of iron, which apparently produces results altogether out of proportion to its chemical equivalent, the proportion varying with the compensation of the sewage, but their combination having a marked sanitary and economic advantage. . . . The process previously employed gave highly satisfactory results, but the addition of the salt of iron has led to the production of an excellent effluent, and at less cost than previously. The employment of the combination has also resulted in the tanks and the sludge being deprived of the slight smell hitherto noticeable at times. The economic results attending this compound system of precipitation will be recognized when the writer states that "at the county sewage works the purification of the very foul sewage (containing between six and seven grains of chlorine per gallon, and between twelve and thirteen grains per million of albumenoid ammonia, with a large amount of dye from the manufacturers) is now accomplished for £1 1s. 1d. per million gallons. The sewage is equivalent to fifty gallons per head of the population per diem, the maximum flow being two and a quarter million gallons a day. The necessity for the adoption of such a standard of flow cannot be too strongly insisted upon, as the most fallacious estimates of sewage treatment by every system have been arrived at through ignorance or neglect of this essential consideration." The writer then goes on to explain how, by a process of pressure and filtration he converts the fluid sludge into a solid and portable form, which is readily purchased by farmers for fertilization, and without any insalubrious after-effects. All medical men are familiar with the deodorizing power of sulphate of iron;

and if in the combination described it becomes a disinfectant, we have what is generally needed—a very cheap one.

It does not appear from the above report that it produces such a solid precipitation as to preclude its use in drains, privies, and sewers. One fact is very evident; that no sewer should be allowed to discharge into any body of water directly, but should empty into tanks or sluices, whence, after disinfection, it may pass into a pond or stream.

When a startling discovery is made or announced, its influence is apt to be exaggerated, and its application is often extended to subjects with which it has nothing to do. This is doubtless the case with reference to impure water supply. It is credited with too many evils; but that it will increase and intensify disorders springing from other causes and propagated by other channels cannot be doubted. Of this a very remarkable illustration has been afforded in an epidemic of diphtheria in Geneva, N. Y., during the past winter. The village is delightfully located on the banks of Seneca Lake. It stands high for the most part, on a bluff forming the western shore, and has always been considered healthy. Diphtheria invaded it during the winter months, and was characterized with unusual tenacity and fatality, subsiding at times and then recurring with great violence.

Investigation as to local causes was conducted by Prof. Brene-man, of Cornell University, who found that while the water supply to some portions of the village was of the very best character, as that coming from the "White Spring," and which yielded only $\frac{2}{100}$ grains of chlorine to the gallon, the public pump on the corner of Main and Castle streets furnished 21 grains of chlorine to the gallon, exceeding the average of that furnished by the sewers of Boston and of some other cities. Other pumps and wells yielded 14, 12, 9, 8, 7 grains chlorine per gallon; and corresponding with the amount of chlorine was always a relationate quantity of albumenoid ammonia and of nitrates. Water from eighteen sources was examined, and thirteen were condemned.

The disease was more prevalent and much worse in the localities supplied with the bad water than in the others, but was not confined to them. A practical remark of much value, pertaining

to the modification and propagation of disease as gathered from the condition of the water supply, is made by Prof. Breneman, to this effect: "It shows the extent of soil saturation and indicates the condition of the ground, the emanations and exhalations from which taint the air in which the families are obliged to live, and exposes them to a constant morbid agency."

Is not this a wise and admonitory deduction? and does it not explain the insalubrity of many localities of which a casual examination would not lead to the slightest suspicion.

SANITARIA FOR TREATMENT OF PHTHISIS PULMONALIS.

So much interest was elicited last year by the remarks of the speaker's predecessor on "Climatic Treatment of Pulmonary Phthisis" that it is hoped a few words on the same subject may not be out of place. It is well known that in Europe mountain resorts for winter as well as summer are now on trial. Those most noted are at Goerbersdorf, Falkenstein, and Davos. A personal friend and patient who spent nearly two years in Colorado is now at the last mentioned resort for the second winter, and has sent so full a description of the mode of life and of its atmospheric surroundings—such as has not been published in any medical work or journal—that deductions have been drawn as to a probable cause of improvement not necessarily depending upon any special locality, and this is, *systematic and persevering out-of-door exercise in all kinds of weather*. To this there are undoubtedly adjuncts, which will be briefly considered. The village Davos am Platz, in Switzerland, is situated on a large plateau 5,000 feet above the sea level, and completely surrounded by mountains, which screen it from high and penetrating winds. Like that of almost all corresponding altitudes, the air is very dry; its humidity being less by two-thirds than that of Nice or Cannes. This gives it a property of elasticity, or, as it is sometimes, called, electric tension, which modifies in a remarkable manner the sensations of heat and cold. Persons often sit in the open air, even after sunset, with the mercury below freezing, without overcoats, without the slightest discomfort, and most of these invalids at that. The daylight at Davos is very short in winter, the sun overtopping the moun-

tains about 10:30 A. M., and sinking behind their summits from 3:30 to 4 P. M.; but the sunshine, while it lasts, is very bright, and the heat of its direct rays is intense, rising to 100° or over, while at the same time the temperature in the shade will vary from 22° to 30°. The average temperature for Davos for January, 1878, was 16° most of the nights, and many days marking zero or below. To quote: "The sun will almost broil one's back, while icicles from his breath will form on his moustache and beard, and, changing front, his face will be actually sunburnt. From the constant sun-bronzing to which they are subjected, invalids soon lose all appearances of delicate health. The food generally is not inviting, nor even well-cooked, but an enormous appetite is established after a few days' sojourn; and the rule, to which there are but few exceptions, is that everybody gains more or less rapidly in flesh. The doctors drive every body out of doors—it is not too much cold, but too much heat that they dread.

"You may think there is plenty of time for correspondence, but this is not so—we are walking, sledging, coasting, skating, snow-balling, and eating. An excursion of ten miles on foot soon becomes a bagatelle to delicate women, who at home could not be induced to walk a fourth of that distance. In the evening there are hops, amateur theatricals, and various amusements—but all by medical direction—of short duration, which is even extended to the Sunday service, which is restricted to one session of one hour. Persons who have had hemorrhage cease to bleed, coughing and expectoration rapidly diminish—in fact, there will be more coughing in an average country church than in one of our assemblies of invalids. Of course, all who come here do not improve; many are brought hither in a dying condition, but some of those apparently in that state, experience wonderful improvement, and pick up to a surprising degree; and, as little or no medicine is administered, the credit must be given to fresh air, locality, and exercise. Those who wilfully devote most of their time to cards, billiards, and saloons, where the air is made close by crowds and tobacco, do not generally improve much in health. The local physicians are very cheerful and enthusiastic. They talk a good deal about infiltration, consolidation, and cicarization of cavities, etc.; and as almost all the

visitors are, or suppose themselves to be, consumptive, they catch these and other expressions, and speak so complacently of the changes their lungs are undergoing that we have to add a large stock of faith and hope to the natural curative properties of this region. Hotels and boarding-houses are becoming too numerous. A few years since there were only two. In fact, we are beginning to suffer some of the inconveniences that arise from too great an influx of people, and some of the medical men think that it may introduce elements of insalubrity as an almost unavoidable result of too much crowding."

The foregoing abstract of remarks made by an unprofessional but intelligent observer, and a self-watchful tubercular invalid, while it unfolds the daily life and usages, and therefore here presented, coincides quite closely with the professional papers of T. Clifford Allbutt, of Leeds, published in the London *Lancet* within the past year. One of them commences with these words:

"For many years I have held that the majority of phthisical patients die of septicaemia, and that the arrest of this daily repoinsoning is a primary object of treatment. . . . If there be an antiseptic climate, we may hope to counteract this secondary blood poisoning by sending our patients to live in it. . . . The antiseptic state of the air on the Alpine heights has been proved by Prof. Tyndall's experiments at Bel Alp; but that is insufficiently sheltered. In Davos alone, so far as we yet know, is found an air at once aseptic, bracing, and still. . . . There is given here, by implication at least, the impression, and by other writers the positive statement is made, that bacteria have much to do with the march and diffusion of phthisis. It is suggested by the writer that these microscopic entities have altogether too much blame attached to them. They appear to be a component part of the tellurial atmosphere. They are found everywhere, but in varying proportion, and are quite as likely to be nature's air *scavengers* as the product and producers of morbid action."

They are credited with generating vibriones, micrococci, and microzymes, etc. Just now it may seem very heterodox to assert that, like other scavengers of larger size, they simply congregate where is found what it is their office to remove. In a thoughtful

and suggestive paper published in the *American Medical Bi-Weekly*, entitled "A Few Words About Health Resorts," Dr. F. I. Bancroft, of Denver, Col., takes the strong ground that there is no place on the habitable earth that can bear the afflux of large and repeated numbers of tubercular patients without itself becoming a source and propagation of phthisis, no matter what its previous condition as to salubriety may have been, and no matter whether it be high or low, cold or warm, dry or moist. He quotes with approbation the following words from the *Medical and Surgical Reporter*:

"The time was when phthisis was practically unknown in Naples, in Madeira, in Malta, along the Rivera and the upper Nile. Consumptives flocked here in crowds, and now in all these districts the native population succumbs to the disease in quite as large proportion as elsewhere."

Dr. Bancroft asserts that tubercular phthisis is communicable by the breath and sputa, and by infection of apartments, and made more so by the insanitation of towns, hotels, boarding-houses caused by aggregation of diseased persons.

It is not news to any one here present, that this doctrine has long been held in Southern Europe. Dr. Bancroft claims that the advantage of one place over another consists in sparseness of population and in natural pureness of air, which is not easily contaminated. He recommends tent and cabin life, with gradual, and, so to speak, educated approach to the higher altitudes, and says in conclusion, "In Colorado, and I presume in all health resorts, outdoor life is the most powerful factor for good. . . ." After all, it is going back to the example set by the first Dr. Parish, of Philadelphia, who, on coughing and spitting blood and emaciating when a young practitioner, discarded his chaise and made all his visits on horseback, and thereby regained and preserved his health, living to a good old age. Proper health resorts, with judicious regulations, will do something, but they are necessarily only for the few. What shall be done for the great multitude who cannot leave home? What but less of medication and more of hygiene—hygiene in its largest sense—embracing occupation, habitation, good nutrition, marriage relation, and, with all the rest, and above all in its importance, systematic and practical in-door and out-of-door judicious exercise.

Correspondence.

BERLIN, June 1st, 1879.

MY DEAR DOCTOR :—The many engrossing experiences, in the lands of ruins and historic interest, must be my apology for not sooner complying with your parting request that I should write to you. Here, I am a fixture for the present, and so have begun to adjust my internal conditions (mentally) to the circumstances of my environment, as Herbert Spencer would say. I hardly know what to write you of, so much have I met of great interest to myself. I early went to Rome, after landing in Liverpool last March, and spent nearly a month there under the bright skies, and in the warm sunshine of Italy, and found it a most welcome substitute for the cold, gray skies of England, and the, then, cold atmosphere of Paris. No place in the world offers, to the visitor, the endless field of interest which Rome presents. One can revel, at will, amid the relics of a historic past, or luxuriate amid the treasures of art, until his æsthetic nature is so filled with enjoyment of the beautiful that he almost sighs for some of the sterner duties of life to come to his aid and relief. So we found it, and, reluctantly, left the Eternal City for a short stay in Florence, Venice, etc. In Rome I looked the hospitals over pretty thoroughly, and can only say they are good, bad and indifferent. The best is the large Surgical Hospital of "San Geacomo in Augusta." This, with a capacity of 1,200 beds, is one of the finest Hospitals I have visited. It is supplied with all modern appliances, and is scrupulously *clean*, which is not the case with the Italian Hospitals generally.

The sewer system of ancient as well as modern Rome was most interesting to me. I explored the "Cloaea Maxima," and in doing so, was very profoundly impressed with the fact that those old Romans "*built better than they knew*," for this old sewer, constructed nearly 2,000 years ago, is doing its duty to-day as well and faithfully as when first constructed, and will continue to do so for a thousand years to come despite the destructive influences of "the gnawing tooth of time." Florence and Venice we enjoyed most fully, especially in their Art treasures. At Florence the

Anatomical Museum is the largest and most interesting I have seen. The collection of wax models of muscular, nervous, vascular and osseous tissue is wonderfully beautiful and perfect. Susini's best work is here. From Venice we came on to Munich, stopping a day at Trent to break the journey. This place, where the old Councils of Trent were held in 1545 and 1563 was quite interesting. It is beautifully situated in the Austrian Tyrol among the Alps.

At Munich, a longer stay opened much of interest. The University is excellent in its arrangements and appointments. I was much pleased with my experiences with Prof. Ziemssen. He was most cordial and polite, and interested me much in studies he was engaged in making, in the peristaltic movements of the intestines, and the contractions of the stomach under the stimulus of the direct or induced currents. His deductions are interesting and are borne out by the vivisections he is making. He appreciates American fondness for study, and, like most of the German Professors I have met, feels that a strong bond of sympathy exists between German and American Scholars. Both his and Prof. Nussbaum's clinics are supplied with every appliance conducive to illustration and instruction. Prof. Bauer was exceedingly pleasant. Munich is very attractive to the student. Its Art treasures are numerous, and most systematically and scientifically arranged. On the whole, I consider it an admirable place for study. From Munich we went to Leipzig. Here I enjoyed the days very fully in the attractions of the University. Prof. Ludwig, of Physiology, is a thorough German, and student. He is full of enthusiasm, and his Laboratory is most interesting. I passed a delightful afternoon with him in it, listening to his deductions from his studies on the constitution of the blood, muscular contractility and nervous irritability. His apparatus is very delicate.

Prof. Kolbe was exceedingly kind; he seemed to take much pleasure in inducting me into the mysteries of his extensive and admirably appointed Laboratory. He is most interesting, and enjoys sharing the rich accumulations of his study and observation with others. Knowing his views upon the physiological action of Salicylic Acid, I took pains to become acquainted with his opinions

from personal statements. He has written somewhat upon the subject, and I have been much interested in reading a published article of which he gave me a copy. It is so interesting in some of its conclusions that I have translated and enclosed a portion of it.* I think it will interest the readers of the *Journal*, coming from one who occupies so prominent a position in the world of science as does Prof. Kolbe. With Prof. Hofmann (Prof. of Hygiene) I visited the "Municipal Hospital." This was constructed a few years ago under the direction of Wunderlich and Thiersch, and is an admirable institution in its construction and appointments. It has a capacity of five hundred beds and is well conducted.

Leipsic with its attractions had to be left; and, accordingly, we came here some ten days since. I expect to remain here until June 15th, when we go to Paris for a month, before going to England. The University here offers many attractions, and I shall feel loth to leave Berlin. Prof. Virchow recently addressed the Medical Society of Berlin upon the subject of the Astrakan Plague. He dwelt upon the fact that our knowledge of the physiological characteristics of the disease is very slight, and was severe in his strictures upon the Russian Government for failing to send out competent men to observe its character. He thought a blockade of the Russian frontier very deceptive. He questioned the value of Sulphurous Acid as a disinfectant, because he thought it doubtful whether this agent is able to penetrate clothing in such a way as to destroy the germs. He recommended as a better plan, that all infected articles be placed in a chamber, raised to a temperature of 120° Centigrade by means of steam pipes.

But I shall weary you, I fear. I will try to write you again from Paris, when I will give you some facts relative to sewer systems of the great cities I have visited, etc.

My kindest remembrances to your family. To all my colleagues in Buffalo please extend my kindest regards. I look forward with pleasure to the time when our mutual work begins.

I am, as ever,

Very sincerely yours,

E. V. STODDARD.

*This translation will appear in our next number.

TREASURY DEPARTMENT, }
OFFICE SUP. SURG.-GEN. U. S. MARINE-HOSPITAL SERVICE, }
WASHINGTON, D. C., June 11, 1879. }

*To the Medical Officers of the Marine-Hospital Service,
And all others whom it may concern :*

1. To insure to such owners of American vessels as desire the services of sound and healthy seamen, facilities for the proper physical examination of crews, at all ports where medical officers of the Marine-Hospital Service are stationed, such officers will, upon the application of any U. S. Shipping Commissioner, or of the master or owner of any vessel engaged in the foreign trade, or passenger steamer engaged in the coasting trade, examine physically any seaman or seamen, and give a certificate as to their fitness or otherwise.

2. A record will be kept of all examinations of seamen, and a transcript thereof forwarded quarterly to the Surgeon-General of the Marine-Hospital Service.

3. In all cases of rejection, the certificate will state explicitly, in English, the reason for such rejection.

4. The loss of an arm or leg; defective vision; color blindness; epilepsy; mental unsoundness; hernia; piles; fistulæ; varicose veins; serious organic diseases; habitual drunkenness; the existence of venereal disease; marked want of development; weakness of the body, or deformity; should cause the rejection of any seaman desiring to ship.

5. No seaman will be examined for the purpose of giving such certificate except in the presence of a United States Shipping Commissioner, or the master, owner, or agent of the vessel on which the seaman is expected to be employed, and examinations will only be made at the Marine-Hospital Office.

6. The rejection of a seaman at one examination shall not debar him from subsequent examination in case he claims that the disease for which he was rejected has disappeared.

7. The provisions of this circular will also apply to enlisted persons in the Revenue-Marine, Life-Saving, Coast-Survey, and Light-

House Services, and to persons desiring to enlist therein, upon the application of the proper officers of the respective services.

8. No fee will be charged by any medical officer for making the examination or certificate herein contemplated.

J. B. HAMILTON,
Surgeon-General U. S. Marine-Hospital Service.

APPROVED:

JOHN SHERMAN,
Secretary of the Treasury.

—:o:—

Miscellaneous.

Letter from Vienna.

*Clinics for Skin Diseases and Syphilis.—Billroth's Operation.—
Clinical Cases, &c.*

MR. EDITOR:—Vienna continues to be very attractive to students of medicine. Nearly all nations are represented here this winter, including a large number of English-speaking people, one hundred and eight of whom are Americans. The abundant material to which the student has full access, the large number and the excellence of the private courses, and the fact that they are so arranged that one can go from course to course all day long without losing time, are the wide-known attractions of the Vienna system.

Skin is decidedly the most fashionable study. In this branch of medicine there are six clinics daily. Professors Hebra, Neumann, and Kaposi are the best, the two last being the most popular among the Americans. Professor Kaposi has just come out with a new book, which is essentially the same as his lectures, and is remarkably clear and explicit, especially in regard to treatment. In the Hebra clinic one is struck with the rapidity and accuracy in diagnosis, and the simplicity and efficacy of the treatment. Hebra's spoon scrapers are extensively used in the treatment of epithelial cancers, lupus, moles, etc. With these instruments it is almost impossible to scrape away anything but the diseased tissue. Quite large epithelial cancers of the face are at first spooned out as much as possible, and later the returning disease is continually cauterized with nitrate of silver until the granulations are healthy. The resulting scars are often better than could have been expected from a plastic operation. Lupus is usually treated in much the

same way, but when the disease is extensive or the patient especially sensitive, a strong pyrogallic-acid ointment is applied. At the end of two or three days the diseased parts are found to be necrosed, and soon slough out, leaving healthy skin on the sides and granulations beneath. The experiments with ehrysarobin and pyrogallic acid in the treatment of psoriasis, herpes tonsurans, etc., are still continued, and have already been mentioned in your pages by Dr. Garland.

Syphilis seems to be well understood, and is excellently taught. The wards of Professor Sigmund are noticeable for the order,—the discipline of the nurses, who do all the dressings in both male and female wards,—and for the scrupulous personal cleanliness of the patients. Professor Sigmund himself has given only four lectures this winter. His assistant, Dr. Mrazk, gives a very good private course, where one can get a large experience in diagnosis and treatment in a short time. The well-known inunction cure is extensively used; also the subcutaneous injection of either peptone quicksilver or the albuminate of quicksilver.

Professor Sigmund claims that wounds heal as well in syphilitic subjects as in non-syphilitic; accordingly, if a chancre is so situated under the prepuce that it cannot be taken care of, the patient is circumcised, and not only the prepuce but as much of the induration as is inconsistent with the symmetry of the organ is also removed. Circumcision is almost always done if the chancre is so situated that it can be removed with the prepuce. When the wound unites by first intention, which often happens, there is a clear gain of two months' treatment of the chancre. These wounds usually do very well, except in cases where the chancre is gangrenous or diphtheritic.

Indolent suppurating buboes, syphilitic or otherwise, are not simply laid open, but all the tissue of the upper part is cut away down to the edge of the cavity, leaving a flat, open wound, and if the pus has burrowed under the glands they too are excised.

In surgery Professor Billroth attracts a large class, a few of whom are Americans. He usually has something interesting. A few days ago he removed a larynx, and early in the winter he exhibited a man with a gastric fistula. We were somewhat surprised at the treatment of a hip dislocated on the dorsum ilii of four months' duration. He made no attempt to reduce it by manipulation on account of its long standing, but opened the joint by a long incision from the buttock down on to the back of the thigh; he then "cut all the muscles that prevented its reduction," and with the aid of several assistants brought the leg into position; then putting his hand into the wound brought out the head of the bone, which had been broken off by the reduction. His wards are remarkably clean and orderly. He usually operates under carbolic spray, and applies a very large dressing consisting of simple disinfected gauze containing no antiseptic whatever, over

which is a large quantity salicylic oakum or cotton, and outside of all a starch bandage, to render the part immovable and the dressing secure. The solutions for washing the wound, etc., are thymol. Heavy flaps in wounds are held in place by deep wires secured by lead balls.

In diseases of the urinary organs Dr. Ultzmann gives a good course. He has made a special study of the pathology and treatment of spermatorrhœa. Not to mention many smaller points, he says that in these cases the pars membranacea and prostatica is especially sensitive to the sound, and that the mucus membrane in that region is excessively hyperæmic as seen with the endoscope. Towards such a condition of the urethra and a relaxation of the ducts of the vesiculæ seminales he aims his local treatment, which consists for the most part in the application of a sound cooled by a double current of water and astringent suppositories introduced by Dittel's *porte-remède*. His results are often good. He points out the danger and demonstrates cases of male sterility after gonorrhœa caused by inflammatory obliteration of the ejaculatory ducts. He insists on the risk of entirely emptying a paralytic bladder at the first catheterization, on account of the hyperæmia *ex vacuo* which will follow in proportion to the thickness of the wall and to the amount of urine that constantly remained in the bladder. The immediate danger is a hæmorrhage into the kidneys or bladder. The worst result to be thought of is a fatal nephritis; the least is a more or less severe cystitis. His procedure is partly to empty the bladder at first, and to substitute a carbolic solution (one half per cent.) for the urine, gradually diminishing the amount until the bladder is empty, at the same time applying massage and electricity to the bladder region. He has just written a book on the examination of urine, which contains references to his well-known atlas of urinary sediments. This book explains many new points, and is of especial value to his pupils.

Midwifery is popular, because the students are allowed to examine all the cases and to perform the smaller operations. The courses were all stopped for a time on account of the large number of puerperal fever. The instructors make a great point of external examination and diagnosis. Last May Dr. Schanta, Professor Späth's assistant, having read of some cases of abortion accidentally caused by pilocarpine, resolved to test its power in that direction. Accordingly, he caused a woman to abort by subcutaneous injections of pilocarpine, and published the case. Since that time he has continued to experiment with the drug. Of late he has used it with good results in those cases in which ergot is contraindicated from the fact that the os is not fully dilated. These experiments will soon be published.

It has long been the custom here to cut and tie the cord as soon as it is pulseless. Within a few months a set of experiments have been instituted in Professor Späth's ward which show that the

child, the cord not being cut, gains on an average about seventy grammes in weight between the time it is born and the time when the placenta comes away, and that a large proportion of this gain takes place after the cord has stopped beating. In the light of these experiments the cord is not tied until the placenta has come away, in order that the child may get the benefit of as much blood as possible.

In clinical medicine Professor Bamberger has of late become very popular, and he certainly impresses one as a man of great learning and ability. In the most difficult cases he runs rapidly through the symptoms, pathology, and treatment, discussing the latest theories in point, and giving the possibilities, probabilities, and certainties in regard to the diagnosis in a mechanically logical way seldom heard in medicine. The autopsies show him to be remarkably accurate. There is a good private course in his wards under his assistant, where students are allowed to examine the cases, and oftentimes the case to be shown by Bamberger in the next morning's clinic. In this department the instructors seem to be especially advanced in the interpretation of the auscultation of the heart, Professor Bamberger having written an excellent book on the subject some years ago. Here we have met a disease new to us, and said to be recognized only in Vienna, namely, workers in mother-of-pearl often appear here with periostitis or valvular disease of the heart, or both together. At the autopsies of these cases pearl powder is found deposited on the periosteum and bone; also on the affected valves of the heart.

Dr. Oster gives a course on the stomach and intestines. Here we have seen startling results from the mechanical washing out of the stomach and the irrigation of the intestines. It is astonishing to see with how little effort or discomfort the patients without assistance swallow the rubber tube through which the water is introduced.

Dr. Monti gives a very popular course on children. In pathological anatomy Dr. Chiari, Professor Heschl's assistant, gives a very good course. Curious and rare specimens are constantly appearing out of the enormous mass daily exhibited. The results of operations are often instructive. Early in the winter, on exploring a wound of the neck, from which some glands had been removed, the carotid artery was found to have been nicked, the jugular vein to have been cut and tied, and the phrenic nerve tied. It is an interesting fact that this patient had experienced no special difficulty in breathing since the operation. Within a few weeks three cases have appeared, the results of extirpations of the uterini; in each case a ureter was cut, and in two of the cases the ureters were cut and tied.

Dr. Chiari has of late examined eight hundred rectums with reference to the pathology of anal fistulae. He has noticed that Morgagni's glands, situated just inside the anus, where the mucous

membrane begins to take on the characteristics of true skin, although very shallow in young individuals, are often quite deep in old people, and that this appearance is often increased by the columnæ Morgagnii, the parts between the glands being thickened by hæmorrhoidal veins. He has succeeded in obtaining a series of specimens which show these glands in a great variety of conditions and sizes,—some shallow, some quite deep, some very deep and extending through the sphincter ani. On the other hand, he has found mucous membrane lining parts of the tracts of complete fistulæ. His idea is that when the rectum is full of fæces and the sphincter contracts, these glands, as parts of less resistance, are slowly pushed out, dragging the mucous membrane behind; that once having pushed through the sphincter ani so that the fæcal matter cannot return to the bowel, the stagnating masses excite ulceration, and come gradually, though not always, directly to the surface. He thinks that the fact that the surgeon always looks for the opening of the fistula just inside the anus is a support to his theory. Whether this theory be accepted or not, perhaps the facts that some fistulous tracts are lined in part by mucous membrane will explain their obstinacy in healing, and suggest the inadequacy of treatment by simply cutting the outer wall. J. W. E. *Boston Medical and Surgical Journal.*

:O:

Intravenous Injection of Milk in Chronic Bright's Disease--with Remarks.

BY JOHN BRYSON, M. D., St. Louis Courier of Medicine.

CASE.—I first saw Mrs.——, æt about thirty-five, in August, 1878. She had already suffered from chronic renal disorder for several months, and was pale, weak, waxy-colored, and cachectic. The entire body, below the breasts, was highly œdematous, but I could make out no accumulation of fluid in the peritoneal sac. The area of precordial dullness was not increased, and, in fact, there was nothing abnormal about the heart. The urine, I afterwards determined, ranged in quantity from eighteen to thirty ounces in twenty-four hours; was pale, of a specific gravity of 1004 to 1011, and contained albumen to the extent of from one-half to two grains to the ounce. It deposited an abundant sediment, made up principally of fragments of epithelial cells, but containing, at the same time, a very few hyaline and pale casts. Several times there appeared, also, some large, waxy casts; but only once a granular cast. There was no evidence of an acute commencement of the renal disorder, but on the contrary, the history distinctly indicated that it was chronic from the beginning.

No uræmic symptoms had appeared. I believed the case to be one of *chronic parenchymatous* nephritis (large, white kidney.)

Arsenic materially lessened the amount of albumen in the urine; but hot-air baths and iron did not improve the general condition. Finally, acupuncture removed the œdema, in a short time, but after its disappearance the patient was not much better, except that she could be moved about and had more ease. Emaciation was extreme, the dry, yellow and branny skin appearing to be drawn over a mere skeleton. Digestion was almost *nil*, and the impoverished condition of the blood (hypalbuminosis) was marked.

On September 27th, at 8.0'clock, A. M., the patient appearing to be in a dying condition, about three ounces of milk, fresh from the cow, and of neutral reaction, were injected into the median cephalic vein of the left arm.* Immediately, on the milk beginning to flow into the vein, the patient had an uncomfortable, sinking sensation, was slightly nauseated, and soon lost consciousness. The pulse became slower, weaker, and eventually imperceptible at the wrist, but gradually came up, and at the end of the operation was 60 per minute. At 8:40 the pulse was 82, and there were slight chilly sensations. At 10:30, pulse was 118, and reaction was complete. At 2:45 P. M., pulse 108, skin moist, and patient had some appetite; took more than a glassfull of milk with relish. At 6 P. M., pulse was 90, and of good volume. Patient passed three ounces of urine, in which there was a trace of albumen.

During the following day (28th), the pulse varied from 80 to 96, and was of good volume. A decided change was to be observed in the skin; it became less dry and dull in color, was more moist or oily, and, in fact, nearly normal. The patient took food, and getting up from her bed, set in an easy chair for an hour or so. The urine passed was of a better color and specific gravity, (1012), and had in it less than one grain of albumen to the ounce. Its quantity could not be measured.

This improved condition continued during the 29th and 30th, the specific gravity of the urine going up to 1014, and albumen remaining present to a very slight degree. On the first of October, I desired to repeat the intravenous injection, but the patient refused her consent, and I injected, hypodermically, 12 c.c. (3 *f. 3*) of freshly-drawn cows milk into the arm. This was rapidly absorbed, and without the slightest irritation. The next day I injected 30 (10 *f. 3*) milk, in the same manner, without difficulty, but the effect on the condition of the patient was not, in either case, perceptible.

On the night of the second, the patient, who was a chronic opium-eater, but who had abstained from the use of the drug for

* Dr. John T. Hodgen opened the vein and introduced the canula—an operation of no little difficulty, as the blood-vessel was very small. I am much indebted to him, and also to Dr. Mudd and Mr. Dewey, for assistance in this case.

two weeks previously, succeeded in getting and taking a large dose (some four ounces) of paragoric, to which she added some laudanum,—how much I could not ascertain. At once all absorption ceased, and, gradually sinking, she died on the night of the fifth of October. I was not permitted to make an autopsy.

REMARKS.—In attempting to determine the value of intravenous injection of milk in clinical medicine and surgery, we are compelled to proceed by methods entirely empirical. Theoretically, the operation gives large promise, just as the transfusion of blood did. But it is hardly too much to say that the latter operation has not fulfilled its promise; neither does it appear that the former will do all that some have hoped for.

It was my idea, at first, to collect all the reported cases available in the current literature, and to tabulate them with the view of developing the indications for a resort to the operation, and its prospect of success. A most superficial glance, however, over the reported cases coming to my hand, convinced me of the futility of such an attempt. Such tabulation, besides eliminating the detail so essential to an appreciation of the condition of the patient operated on, would be especially guilty of those crudities with which the statistical method is charged, because the number of cases as yet reported is so small. I also hoped by a study of these cases to determine, if possible, the relative value of the operation, as a therapeutic measure, in cases of acute hemorrhage in subjects previously healthy, and in those cases where it had been resorted to for the relief of conditions characterized by blood-wasting, such, *e. g.*, as functional and organic anæmias, the hypalbuminosis of renal diseases, etc. The fifteen cases, however, details of which are at hand, afford no opportunities for any comparison, with such an object in view. This is owing to the variety of the morbid conditions for the relief of which the operation has been performed.

If the experiments of Dr. Howe (*Vide N. Y. Med. Record*, Dec. 7th, 1878, p. 444) on lower animals (dogs) are conclusive, nothing is to be expected of the operation in extensive hemorrhage; but the result may be very different in the human subject in cases of secondary hemorrhage after operation. Indeed, the cases of Dr. Gaillard Thomas, who has four recoveries in seven cases, would show as much.

But even if the injections are useless in cases of extensive hemorrhage, there still remains a large and perhaps increasing class of disorders in which they could be employed with advantage. I refer to that class of cases the chief feature of which is a deterioration of the blood. Dr. Hutchison injected fresh milk into the arm of a laborer, æt 44, suffering from extreme anæmia and debility. Three weeks after the operation the patient “seemed on the road to complete recovery.” *Phil. Med. and Surg. Reporter*, March 15th, 1879, p. 230.) It is worthy of note that the transfusion of

blood had previously been performed in this case without benefit. Dr. Charles T. Hunter injected five ounces of milk into the circulation of a woman, æt 32, suffering from "extreme anæmia and spinal irritation." Twenty-seven days later, six ounces were injected. "From the time of the second injection, the patient's condition improved wonderfully; she gained flesh and color, and her nervous phenomena disappeared." (*N. Y. Med. Record*, Nov. 16th, 1878, p. 397.)

Besides the case I have recorded above, I know of no other instance of the intravenous injection of milk in chronic kidney disease. In chronic parenchymatous nephritis, the most prominent blood-change is a diminution of the albumen of the plasma; those nervous symptoms that are supposed to indicate the accumulation of the waste products of the body in the circulation being, as a rule, absent, at least during the first stage. Moreover, the prognosis in this form of renal disease is not absolutely bad. My hope was to, partly at least, remedy the blood-defect in my case, and thereby gain time for further treatment. The object in performing the operation was to supply a loss caused by the local disease. I was led, furthermore, to prefer the intravenous injection of milk to the transfusion of blood, in the hope of avoiding the renal congestion that sometimes follows on the latter operation. In this I was not disappointed. The specific gravity of my patient's urine rose decidedly, but the quantity of albumen lost was not increased. Closely watching its effects, I was led to believe that the patient's life was prolonged by the operation, and this opinion was shared by Dr. Hodgen.

The fate of milk, after being commingled with the circulating blood, is a matter of practical interest. Unfortunately, our knowledge here is very limited. It appears that Donné stated, in 1844, that the milk-globules were converted into white blood-corpuscles. Researches, recently made by N. Wulfsberg, do not substantiate this assertion. He found that the white corpuscles of the blood do really increase in number, but only after they have consumed—eaten—the milk-spheres. From this, it would appear that the milk-globules have to be digested, just as well after they have been injected into the blood, as when they are taken into the stomach. How long the white corpuscles would continue to perform this function is not known. Wulfsberg was unable to prolong the life of animals by the milk-injections. Their body-weight diminished, and they died without obvious disease, and he found hemorrhagic infarcts in their lungs. Hypodermic injections of fresh milk also failed to maintain life, as the animals operated on became atrophic.

Of the fate of the caseine of the injected milk, nothing, so far as I am aware, is known. In the regular order of gastro-intestinal digestion, the caseine of the milk, as is well known, is first coagulated by a special ferment in the stomach. Either this fer-

ment is absent from the blood, or else the conditions necessary for its activity are not present. Whether the caseine is digested, as appears to be the case with the milk-globules, and if so, by what organs or tissues the proteolytic change is effected, are questions for the solution of which we must look to future research.

Wulfsberg believes that the intravenous injection of milk will not supply the place of blood-transfusion; but neither this nor the fact that the lives of animals cannot be maintained by this means, is not sufficient ground for absolutely discarding the measure as a therapeutic resource. In selected cases, and to tide over certain states imminently dangerous to life, it may yet prove of great value, and is certainly worthy of further trial at the hands of the profession, and of further research in the laboratories of the experimentalist. From both of these sources valuable information will, doubtless, shortly come; for intravenous injection of milk is getting to be quite the fashion, especially in eastern cities, and the present activity of physiological and pathological research gives no small hope from *that* direction.

-----:o:-----

The Identity of the Cells found in Fluid from Cystic Tumors of the Neck, Scrotum, etc., with the so-called Ovarian Corpuscle or Drysdale Cell.

By HUGH M. TAYLOR, Assistant Demonstrator of Anatomy, Medical College of Virginia, etc., Richmond, Va.

Some cases have come under my notice recently which are, I think, just at this time interesting. A few weeks ago, Prof. Christopher Johnston, of Baltimore, Md., reported in the *Virginia Medical Monthly*,* that he had found in some fluid taken from a cystic tumor of the neck, cells very much resembling the Drysdale cell or the so-called ovarian cell. Shortly after reading this report, I was called upon to remove a tumor from the neck of a colored woman, which proved to be fibro-cystic in character. Wishing to ascertain if it contained any cells or corpuscles which resemble those usually found in the ovarian fluid, I sent some of it to Mr. Hugh Blair, of this city, accompanied with the request that he would submit it to a microscopical examination. Mr. Blair reported that there was a very striking resemblance between the cells he found in the fluid I gave him, and those usually found in ovarian dropsy.

A few days ago, I assisted Prof. Hunter McGuire to remove a testicle which had undergone cystic degeneration. I also obtained and sent a specimen of this fluid to Mr. Blair, and requested him to examine it. He reports that the resemblance between the cells found in the fluid from the cystic diseased testicle, to those found

* April, 1879, *Baltimore Academy of Medicine Proceedings*.

in ovarian dropsy, is even more striking than they were in the first specimen I gave him; and that if there are any characters sufficiently distinct to differentiate them from the Drysdale cell, he is, at this time, unable to point them out. * * * *

In starting this investigation, Prof. Johnston will, I am sure, add much to his already enviable reputation by refuting the idea which has so long prevailed, viz.: that these cells are alone to be found in cystic degeneration of the ovaries, and are therefore pathognomonic of ovarian dropsy. It may be shown that they are only to be found in a peculiar cystic degeneration of special glands. I think this hypothesis highly probable, since we have only found them in the tumors about the neck where glands are abundant, and in the ovary and testicle—analogue organs; but I hardly think they will again be claimed as being peculiar to ovarian dropsy.—*Virginia Medical Monthly*.

————:o:————

The Wisconsin Medical Act.

We have received a copy of the act, as read the third time in the Senate:—

SEC. 1. A person practicing in the State must have a diploma, or pass an examination before the State Board of Examiners.

SEC. 2. The Governor shall appoint a board of examiners, of six physicians (four regular and two homœopathic), and those shall appoint a seventh.

SEC. 3. Defines the organization of the Board.

SEC. 4. The Board shall examine diplomas and candidates. Holders of genuine diplomas shall pay \$2.00; of spurious diplomas, \$20.00.

SEC. 5. Persons not holding diplomas may be entitled to practice after examination.

SEC. 6. Every such license shall be recorded within thirty days.

SEC. 7. The Register of Deeds shall keep the records.

SEC. 8. Fee for candidates for examination to be \$5.00.

SEC. 9. Payment of Examining Board.

SEC. 10. Examinations defined.

SEC. 11. Dishonorable conduct may forfeit certificates.

SEC. 12. Defines a practitioner of medicine.

SEC. 13. If any physician practicing medicine in this State shall write, or cause to have printed upon any prescription, the words, "No Duplicate," any druggist, apothecary, or vender of medicines who shall duplicate a prescription so written or printed upon, without the consent of the physician writing the prescription, shall, on conviction thereof, be subject to a fine of ten dollars (\$10) for each and every offence, together with the costs of suit.

SEC. 14. Itinerant venders of drugs to pay \$100 per month.

SEC. 15. Penalties for disregarding this act.

The remaining sections are formal; the act to take effect after August 15th next.—*Medical and Surgical Reporter*.

Editorial.

Remarkable Petition for Insane Asylum Investigation.

The *Albany Argus* of a recent date gives an editorial summary a very extraordinary report of the Committee on Public Health of the State Senate, made just before adjournment. To that committee was referred a petition alleging abuses in the State Asylum for the Insane. The committee were directed to inquire whether, from the averments of the petitioners or from any probable evidence they could furnish, warrantable ground existed for ordering a detailed investigation. The members of the committee put themselves in communication with the signers of the petition, and requested them to communicate facts within their knowledge. The Superintendents of State Asylums and the Commissioners in Lunacy were also summoned.

The result was very remarkable. More than half the petitioners repudiated their signatures altogether. President Barnard and Prof. Draper of New York were among those who declared that they never signed their names and that they were put on the petition by fraud. In one instance it was found that the signatures of the members of a large mercantile firm and twenty-one employees had been cut from a testimonial to which they were signed and pasted to the petition without the owners' knowledge. The small number who admitted signing the petition had almost no knowledge of the asylums. They had not even visited them. The principal complainant, William A. Hammond of New York, had been in two of the asylums at intervals of eight and thirteen years; in others never. The committee therefore could get no facts whatever sustaining the charges. One or two witnesses showed great personal antipathy to certain superintendents of asylums, and that is all. The *Argus* says:

"The report, after, exhibiting facts like these, sums up the conclusion of the whole movement in very strong words. The committee declare the petition to be unsupported by a scintilla of evidence; they declared the action and evidence of the few who come to the front to be *an outrage on the honor of a decent and respected profession*; they declare the charges, so far as they can be made stand up in sight, to be not only unproved but disproved; they declare the process of getting signatures to be *an abuse of the right of petition which is beyond characterization*. *Malice, misrepresentation and ignorance, aye, FALSEHOOD, are made the bottom motives of the whole movement, by the report*. The report is very long and very elaborate. It will be one of the ablest legal and literary documents emanating from any legislative body of our time. The public interest in it is not small, and, therefore, we have here indicated its scope and character. The medical interest in the report will be universal. Every medical society in the United States should have a copy. As many doctors as can get copies should get them. The medical publications should present the report to their readers."—*Buffalo Express*.

The report of course does not pretend to show the present asylum management is all it should be. It goes no further than to say that there is no evi-

dence whatever of abuses. At the same time it throws a painful light upon the value of petitions and upon the character and motives of the chief instigators of the raid upon insane asylums which has been going on in the legislature the past season. No wonder they ask for female Assistant Physicians in the female Wards of Insane Asylums and investigation of Asylums. This report of the state senate is conclusive official condemnation of the men, their motives and their measures.

—:o:—

Completion of Volume Xviii, and the future of the Journal.

With the July number closes Volume Eighteen of this JOURNAL, offering a very opportune occasion for subscribers to pay up arrears, and for new ones to commence subscriptions. We hope to hear from all our friends without further or more pressing invitation.

Arrangements are now being made to transfer the JOURNAL to abler and more vigorous hands, and if completed, we have no doubt will result in advantage to the JOURNAL and its patrons. Perhaps we are hardly justified in announcing the new Editorial Staff, but we can assure our friends that it is to be a strong one and in full sympathy with the present friends of the JOURNAL. In taking leave of the JOURNAL and its kind friends, we reluctantly say farewell and God bless our successors, the JOURNAL and all its friends.

—:o:—

OFFICE CARD.—Dr. H. V. HICKS & Co., Preston, Iowa, send us a very ingeniously constructed card for leaving directions in Physicians' offices when absent. It fully meets almost every situation, and would be very convenient for physicians who do not keep a constant attendant in their offices.

████████████████████

We learn with sorrow of the death of Dr. JAMES IVES, of Strykersville, Wyoming county, N. Y. Dr. IVES was an experienced and capable physician of the old stamp, was in high estimation by his professional associates and by the community in which he had lived so long and labored so faithfully. In his later years he had relinquished much of his business which in former years had been extensive and very laborious. His associate physicians will feel his death a great loss in their consultations, while his patrons and friends will long remember his earnest, faithful ministrations in times of trial and affliction.

████████████████████

Books Reviewed.

Spermatorrhœa. By ROBERTS BARTHOLOW, M. D. Fourth Edition, Revised. Wm. Wood & Co.

The subject of spermatorrhœa is presented by Prof. Roberts Bartholow in an attractive monograph. The author is refined in his vocabulary, clear in his diction, and the paper embodies the more advanced views of the profes-

sion upon this topic, which physicians are coming to appreciate, to the disadvantage of the "Merry Andrew."

Lallemand has been the principal source of information on Spermatorrhœa for the past forty years, and, in this production the author seems justified in believing that he has supplied a want long felt.

His views of the pathology of the disorder are radically opposed to Lallemand's, and something the same may be said of his treatment. Bartholow considers the malady a neurosis, and upon this basis establishes his therapeutics. The analysis of the subject is complete and symmetrical, dividing it into true spermatorrhœa, spermatorrhœa as a symptom of some centric nervous lesion, and false or imaginary spermatorrhœa.

To the causes of true spermatorrhœa, the author devotes twenty-four pages which bear evidence of thoughtful investigation, being the most philosophical *expose* of the causes that we remember of seeing, and offering some rather original views which are supported by numerous and varied citations that are neither discursive nor prolix, but to the point, and so selected that they afford the writer a strong position and M. Lallemand's school a feeble one.

While submitting that the disorder is practically always a neurosis, in contradiction to Lallemand, who maintains that its pathology consists in a produced irritation or inflammation of the prostatic portion of the urethra and the seminal ducts, he agrees with the French author that the malady itself is usually the sequence of sexual excesses—in most cases from masturbation. But it is contended that inordinate sexual indulgence cannot have the effect to produce prostatitis (and allied conditions,) unless gonorrhœa be already existing, and refers to the opinion of M. Raige, Delorme, and Mr. Thompson for authority; that Lallemand's theory which has crept into so many text books, is not only untenable, as the authors dissections prove, but conducive to improper treatment also; and that structural alterations are not causative, only as they increase disorders of the nervous apparatus.

Medication is mostly confined to tonic and anaphrodisiac measures—and Bromide of Potassium is the favorite remedy.

Some salutary sanitary rules are given that supersede all else in the treatment of true spermatorrhœa in our estimation.

After a few lines on the treatment of impotence, the Professor closes his deservedly successful little book with a number of formulæ, the most hackneyed of which, it would appear, are the most valuable.

A Tabular Handbook of Auscultation and Percussion. By HERBERT C. CLAPP, A. M., M. D. With four Plates. Boston: Houghton, Osgood and Company, 1879. Buffalo: Peter Paul and Bro.

Handbooks of Auscultation and Percussion, with Plates, have made the active physician familiar with Physical Diagnosis to a degree which could not have been otherwise obtained, as they have little time to devote to careful

study of complete detail treatises upon the subjects so greatly simplified by these works, modestly termed by authors as "handbooks." The author of this work has divided his subject into eleven tables or chapters, which comprise a quite complete discussion of the facts which constitute the art of Physical Diagnosis as understood at the present time.

The National Dispensatory ; containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognised in the Pharmacopœas of the United States and Great Britain.

To a physician of forty years' active practice, whose materia medica is comprised in a list of not more than twelve or fifteen different drugs, the volume presented seems astonishingly complete and comprehensive. The general Index includes a list of over eleven thousand different substances, which are carefully described in a beautifully and substantially bound volume of 1,558 pages. It also contains a very complete and valuable "Index of Therapeutics," which will constitute a great attraction for the work.

The authors speak of the rapid progress of modern research in the group of sciences connected with Materia Medica and Therapeutics, of the new resources thus placed at the command of the pharmacist and physician, as justifying this great effort to make from the advanced-stand-point of the present day a concise, complete statement of all that is of practical importance to both professions. The arrangement of the work is most admirable, its typographical execution perfect, and its whole highly creditable to authors and publishers.

A Guide to the Qualitative and Quantitative Analysis of the Urine, designed for Physicians, Chemists and Pharmacists. By Dr. C. NEUBAUER and J. VOGEL, with a preface by Prof. Dr. R. FRESENINS.

The great importance of Urinary Chemistry is being more and more fully impressed upon the medical student and practitioner, and we believe there is no book in the English language which treats the subject in so thorough and scientific a manner as the one before us. It is separated into two distinct parts, the first being Chemical and the second chiefly Medical, adds to its value as a book of reference for both chemists and physicians. The whole subject is presented in this work and brought up to the present state of knowledge in this important and progressive branch of study.

The style of publication attracts our especial admiration, instead of the light colored leather of former fashion so easily soiled, we have a red stained calf, which seems to us a great improvement on former styles, and we hope it will be generally adopted if proved to be more desirable, as certainly it

would at present appear to to be. Time however, is the test of seeming improvements. Meanwhile we congratulate Mr. Wood & Company upon the prospect.

—:o:—

Books Received.

Photographic Illustrations of Skin Diseases, complete in twelve parts. By George Henry Fox, A. M., M. D. With forty-eight colored plates taken from life. New York: E. B. Treat, No. 805 Broadway. Part I, Price \$2.00.

Diseases of the Intestines and Peritoneum. By John Lyer Bristowe, M. D., J. R. Waddell, M. D., J. W. Begbie, M. D., S. O. Habershon M. D., T. B. Curling, F. R. S., and W. H. Ransom, M. D. New York: Wm. Wood & Co. pp 240.

Pott's Disease, its Pathology and Mechanical Treatment, with remarks on Rotary Lateral Curvature. By Newton M. Shaffer, M. D. New York: G. P. Putnam's Sons. pp. 82.

The Pharmacopœia of the British Hospital for Diseases of the Skin. By Balmanno Squire, M. D. London. J. & A. Churchill. pp. 59.

Elements of Modern Chemistry. By Adolph Wurtz. Translated and edited from the fourth French edition, by Wm. H. Greene, M. D. Philadelphia: J. B. Lippencott & Co. Buffalo: Peter Paul & Bro. pp. 676.

—:o:—

Pamphlets Received.

Fifty-fifth Annual Announcement of the Jefferson Medical College of Philadelphia.

Sixteenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled.

Announcement of the Medical Department of the University of Pennsylvania, for the One hundred and Fourteenth Session.

University of Maryland. Seventy-second Annual Circular of the School of Medicine.

Posture as a means of relief in strangulated and incarcerated Hernia. By Frank H. Hamilton, A. M., M. D.

The Radical Cure of Hernia by the Antiseptic use of the Carholized Catgut Ligature. By Henry O. Marcy, A. M., M. D.

On the Spasmodic stricture of the Urethra. A reply to Dr. F. N. Otis. By Henry B. Sands, M. D.

Minutes of the Meeting of Organization and Proceedings of the Sanitary Council of the Mississippi Valley.

The structure of the Vessels of the Nervous Centres in Health, and their changes in disease. Part III. By Theodore Deecke.

The hand as a Curette in Post-Partum Hemorrhage. By Henry P. C. Wilson, M. D. Baltimore, Md.

The American Medical College Association. Third Annual Meeting.

"Observations on Shock." Read before the Medical Society of the State of California. By E. H. Woolsey, M. D.

Other Symptoms of Nervous Exhaustion, (Neurasthenia). By George M. Beard, A. M., M. D.

Bibliotheca Dermatologica. Piffard.

Pendulum Leverage of the Obstetric Forceps. By Albert H. Smith, M. D. Philadelphia.

Annual Announcement of the Medical Department of the University of Buffalo, for the Session of 1879-1880, with catalogue of previous session.

Eye troubles in General Practice. By Henry D. Noyes, M. D.

Second Annual Report of the Eye and Ear Department of St. Mary's Hospital, and St. Mary's Free Eye and Ear Infirmary, Detroit, Mich.

Provisional Report of the Committee of the New York Neurological Society, relative to the subject of Insane Asylum Abuses.

